University of Massachusetts Amherst

ScholarWorks@UMass Amherst

Doctoral Dissertations

Dissertations and Theses

July 2016

Turning around the Culture of Teaching and Learning: A Turnaround School Success Story

Rachael B. Lawrence
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_2

Part of the Educational Administration and Supervision Commons, Educational Assessment, Evaluation, and Research Commons, Educational Leadership Commons, and the Other Teacher Education and Professional Development Commons

TURNING AROUND THE CULTURE OF TEACHING AND LEARNING: A
TURNAROUND SCHOOL SUCCESS STORY

A Dissertation Presented

By

RACHAEL B. LAWRENCE

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPY

May 2016

College of Education

TURNING AROUND THE CULTURE OF TEACHING AND LEARNING: A
TURNAROUND SCHOOL SUCCESS STORY

A Dissertation Presented

By

RACHAEL B. LAWRENCE

Approved as to style and content by:

_____
Sharon F. Rallis, Chair

_____
Lisa A. Keller, Member

_____
Dania V. Francis, Member

                          _____
                          Joseph B. Berger, Senior Associate Dean
                          College of Education

DEDICATION

This dissertation is dedicated to the many dedicated educational professionals in Portland Public Schools who worked together to create and implement a plan for improving educational outcomes for their students. This turnaround success story would not have occurred if not for the joint efforts of David Galin, the Chief Academic Officer at PPS during the turnaround, and Tracey Warren, the Literacy Coach at Riverton Elementary School. Working together, they developed a focused plan for improving reading, writing, and English Language acquisition outcomes for a school where students are largely newcomers to this country. Their leadership was key to implementing this plan, and for that reason, this dissertation is dedicated to them.

I would be remiss if I did not also acknowledge the hard work of the principal and teachers at Riverton Elementary School in implementing and, eventually, owning the plan. Jeanne Malia, the Principal, was the right person to come in and support the plan developed by Galin and Warren. The teachers at Riverton took up the challenge of implementing new strategies, spending additional time in planning and professional development than would normally be expected of teachers in their position. Their important, hard work cannot go unrecognized. For this reason, this dissertation is also dedicated to them.

ACKNOWLEDGEMENTS AND THANKS

investigating the possible link between teacher professional learning and student

achievement, suggested in the original evaluation. Finally, I received a student research

grant from the Graduate School at the University of Massachusetts Amherst to continue

my work in the 2013-2014 academic year.

Finally, I want to thank my committee members, Lisa Keller and Dania Francis

for helping shape the final form of this dissertation. A story that began as a simple story

about a successful turnaround is now broader picture of the turnaround, thanks to your

feedback and guidance.

ABSTRACT

TURNING AROUND THE CULTURE OF TEACHING AND LEARNNG: A

SUCCESS STORY

MAY 2015

RACHAEL B. LAWRENCE, B.M., HEIDELBERG COLLGE

M.M., UNIVERSITY OF AKRON

Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Dr. Sharon F. Rallis, Distinguished Professor

In 2009-2010, Riverton Elementary School in Portland, ME was awarded a

School Improvement Grant (SIG), supported by the Federal Department of Education

(Federal DOE) through the Maine Department of Education. With this funding, Riverton

undertook the challenge of the turnaround school model between 2010-2013, which

resulted in positive change in academic achievement for their students and an improved

teaching and learning climate and culture. This dissertation examines why the turnaround

model may work, what is currently known about SIG funded turnaround schools, and

what the specific actions and changes that led to the successful turnaround of this school

were. While Riverton followed the turnaround model with fidelity and maintained a clear,

singular focus on the academic goal of English Language and Literacy Acquisition, they

employed changes above the model that facilitated improvement in teaching practice,

resulting in impressive gains in student achievement on standardized tests. With the

change in academic trajectory came a change in the teaching and learning culture at

Riverton School, which may support a long-term, sustainable change. Sustainability is further explored through discussing the funding sources of many of the changes and plans made by local leadership to continue the success of the program when the SIG funding expired. Finally, I explore the potential long-term economic effect of the improved literacy achieved by students as a result of this intervention in terms of savings to society, which may be quite large. As the population of Riverton School is typical of many urban schools, with many recent immigrants to this country, this SIG likely made a large difference in the lives of the students at Riverton.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I
TEACHER PROFESSIONAL LEARNING: A TOOL FOR TURNAROUND?

Introduction

Disparities in school quality plague the education system in the United States. Students of color and students of lower socio-economic status are likely to attend chronically low-performing and failing schools (Harris, 2010). While many reform efforts attempt to address this disparity through local, state, and federal policies intended to improve educational quality across racial and socio-economic divides, rarely has lasting positive change resulted (Tyack & Cuban, 1997; Ravitch, 2001; Lareau, 2011). Still, positive school change is possible through targeted and often externally funded intervention. Schools change when something happens to encourage and sustain both individual and organizational learning (Senge, 2014; Senge, Cambron-McCabe, Lucas, Smith, & Dutton, 2012; Argote, 2014). This study examines the use of a Turnaround School model of school improvement through a School Improvement Grant (SIG) awarded to Riverton Elementary, a school in Portland, ME.

The Turnaround School model of school improvement attempts to address disparities in school quality. Under this model, schools replace their principal and fifty percent of their staff, implement a new curriculum or course of study, undertake job-embedded professional development, incentivize staff through financial or career advancement, extend the school day, and provide flexibility in the operation of the school. If a school fails to improve student achievement within two to three years, sanctions or closures are possible (Kutash, Nico, Gorin, Rahmutullah, & Tallant, 2010; AIR, 2011). These activities support the six factors identified by Harris (2010) as

essential to transforming failing schools: providing effective leadership, improving teaching capacity, using data and assessment, building professional learning communities, increasing networking, and collaboration (see pg. 698-700). Disparities between schools can be defined in many ways and while not the core foci of this paper, for clarity, I use the opportunity gap (see ed.gov, 2014, Harris, 2010) and the achievement gap (see NEA.org, 2014; Harris, 2010) to describe inequality. Differences in teacher effectiveness are often at the center of these gaps – the quality of teaching available to students reflects on the quality of their learning opportunities that, in turn, influence achievement outcomes (Aaronson, Barrow, & Sanders, 2007; Clotfelter, Ladd, & Vigdor, 2010; Rockoff, 2004; Hanushek & Rivkin, 2010). Increasing teacher effectiveness to improve schools and raise achievement levels for students is a central issue for school reform efforts. For example, SIGs and the Race to the Top (RTT) initiatives provide financial incentives and directives to schools aimed at improving student achievement through improved teacher quality (Auguste, Kihn, & Miller, 2010).

The Turnaround School model is one option available to schools receiving SIG funding. SIGs are awarded to "persistently failing schools" (Federal Register, 2010, pg. 66, 364) to support significant changes with the hope of improving student achievement. The SIG policy vehicle provides external resources that can support the development of internal resources for a learning community. While other models are available to schools that receive SIGs, the Turnaround School model utilizes practices that support the transformation of the organizational culture of a school.

According to many authors, SIG awards rarely result in a true turnaround of a failing school (see Struit, 2010, 2012; Smarick, 2010, 2013; Shea & Liu, 2010). Nonetheless, school change is possible when the conditions of the initiative meet the needs of adults and children in the school. This dissertation examines a turnaround initiative at Riverton Elementary School, where the staff worked to change their trajectory in a meaningful way during the three-year funding period of the SIG. Between 2010-2013, student achievement, as represented by standardized test scores in reading, writing, and mathematics, improved significantly at Riverton Elementary School. Various structural and human resource changes appear to have altered the culture of learning in this school.

Problem Statement

Turnaround schools, when they are successful, implement a structured change initiative that results in a cultural shift in the school that transforms teaching and learning. This change occurs, in part, because it is supported by substantial external funds; thus, the change is resourced. However, a study of effective turnaround schools indicated that while they did not revert to their previous poor achievement levels, most schools are unable to sustain their high levels of achievement three years past the initial turnaround (Hochbein, 2012). Riverton Elementary School is an example where the SIG funding leveraged a true (measurable and observable) turnaround of a failing school. In 2010, the Maine Department of Education identified this as a Level 4 or "failing" school (SIG Application, FY 2010). Through implementing policies that changed teacher learning that in turn positively changed instruction, resulting in changed student learning and ultimately better test scores, the gaps between this school and the traditionally more

successful schools in the district began to close. The culture of teaching and learning at Riverton appears to have become more professionally oriented and more effective in instruction. However, what specifically has changed at the school? What contributed to the change? Will the changes support long-term, continuous improvement? What evidence exists that Riverton will be able to sustain positive gains in student achievement in the years following the SIG?

Research Questions

This dissertation explores what happened as a result of a successful turnaround initiative and what happened to the school following the initial intervention. Following the SIG funding period, did Riverton Elementary School continue to develop as a positive place for teaching and learning? The following research questions explore the professional shift at Riverton School.

> R. Q. 1: What structural and human resource changes occurred in Riverton Elementary School during the SIG funding time-period? How did these changes shape a new culture of professional teaching and learning?
>
> R. Q. 2: Did the investments in Riverton's turnaround effort lead to long-term improvement?
>
> In theory, the actions and changes mandated by the turnaround model can be reasonably expected to produce positive results through organizational change to support a learning culture. In the next section, I detail a theoretical framework that outlines what cultural changes can be expected to occur as a result of this effort.

Conceptual Framework: Organizational Change to Support Learning Culture

One effective teacher operating in a single classroom cannot transform an entire school; for gap closure to occur, schools need to become organizations that support teacher and community learning. Schools become learning organizations through providing experiences that transform mental models (perceptions and beliefs) through team learning, guided by effective leadership (Senge, et al, 2012). Changing teachers' beliefs and actions requires resources, both internal (human resources) and external (monetary investment to support activities and materials needed). Improving teaching effectiveness requires an investment in professional capital, that is development of teachers' capabilities within a context supportive of a learning culture (Hargreaves & Fullan, 2012).

The Turnaround School model assumes that positive school change will result from drastic shifts in human resource management and the structure of the school day. However, for a failing school to achieve lasting positive change, a true shift in the professional teaching and learning culture of the school must occur. This shift occurs when the professional learning environment (including formalized professional learning opportunities and effective leadership for professional learning) of a school supports teacher efficacy and the development of professional capital. The following discusses the interaction of organizational change through professional learning, leading to improved teacher professional capital.

Schools are organizations -- complex entities comprised of people with a variety of backgrounds, abilities, beliefs, expectations, roles, and needs. As organizations, the actions and behaviors of people in schools are difficult to understand and predict, as they

often behave in unexpected ways to challenges and/or attempt to obscure their weaknesses when problems exist. Ambiguity resulting from organizational complexity and deception makes change in any organization challenging (Cohen, March, & Olsen, 1972; March & Olsen, 1975), and failing schools are no exception. When they are failing, complexity and ambiguity make it difficult to assess which needs are most important and what strategies will work at the beginning of a change initiative. Teachers, other personnel, students and/or the students' families or community blame each other for the failure, obscuring the true causes of the failure. This leads to stagnation and a cycle of continued failure for many of these schools.

Because of the likely interconnectedness of issues within organizations, change is most likely to take root when a specific problem of practice is identified and examined through multiple perspectives or frames. I choose to analyze the changes in the organization through two lenses, adapted from those suggested by Bolman and Deal (2003) and examine the school through the lenses of structure and human resources, and how these lenses shape culture. Although many definitions for culture exist, I define culture as the common beliefs, accepted behaviors (actions), rules that govern those actions, and customs that transmit understanding of these beliefs, rooted in the historic context of a social community. Schools are the locus of a social community (Hahn, 1996; Rogoff, 2003; Erickson, 1987). Below, I illustrate a cycle that informs how a culture is defined and sustained.
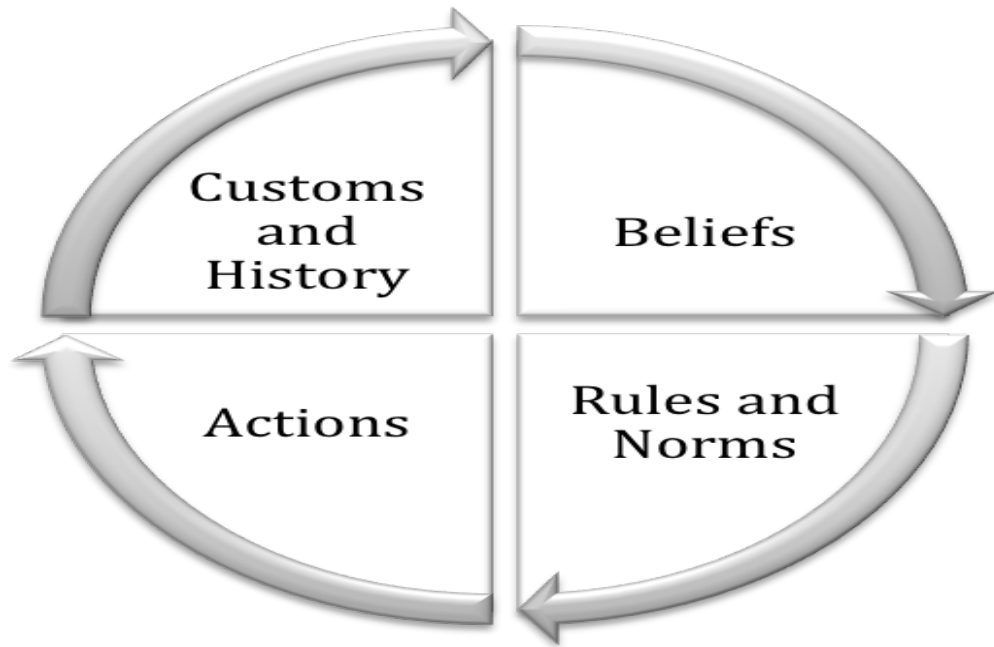
Figure 1-1: How Culture is Defined and Sustained

In figure 1-1, I illustrate components of culture that help transmit and define culture within an organization. The customs and history within an organization inform the beliefs of those who belong to the organization. These beliefs then inform the development of rules and norms, which lead to action within the context of that organization. These actions then serve to reinforce the customs and history of the organization. This cycle describes cultural transmission within organizations like schools, which often sustain a common culture, even when changes to key personnel, curriculum, and other components of the work occur. However, culture change can through a major change in structure or human resources, as illustrated below.

I see the structural frame as examining the formalized roles, relationships, and norms within an organization and what codifies them. The human resources frame examines what people need from their organization to both work well and thrive in their capacity. While Bolman and Deal suggest two additional frames (the symbolic and

political) I choose to focus on the structural and human resource frames because, in many respects, these are the aspects of an organization people feel they can change. Failing schools, like any other organization, rarely have "well-defined, single-frame problems" (p. 301). By making strategic changes in human resources and structures of the school, school culture changes.
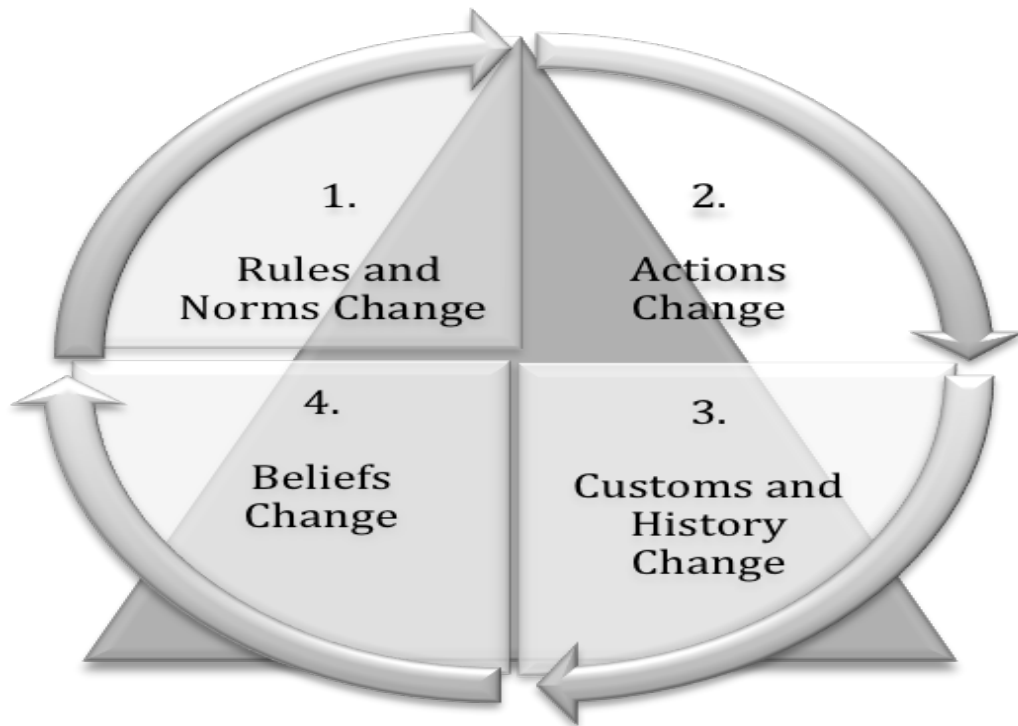
Figure 1-2: How Structural and Human Resource Changes Interact with Culture

School culture changes when the actions and beliefs of the teachers change. Teachers and school employees have set beliefs and practices that arise from those beliefs, and these beliefs may be productive or destructive. That is, teachers have norms that drive their behaviors and interpretations of those behaviors. An extreme example might be that when teachers believe that "these kids can't learn", their instruction (i.e.,

actions) will reflect this assumption. However, if instead they take action that results in clear evidence that this previous belief was erroneous, their beliefs will change (Eisenhart, Shrum, Harding, & Cuthbert, 1988; Fang, 1996; Muij & Reynolds, 2002). In other words, genuine cultural change happens when people begin to act differently –when they see evidence of the change, they begin to embrace a new set of beliefs. The feedback loop between action and beliefs reinforces the change effort, leading to sustainability.
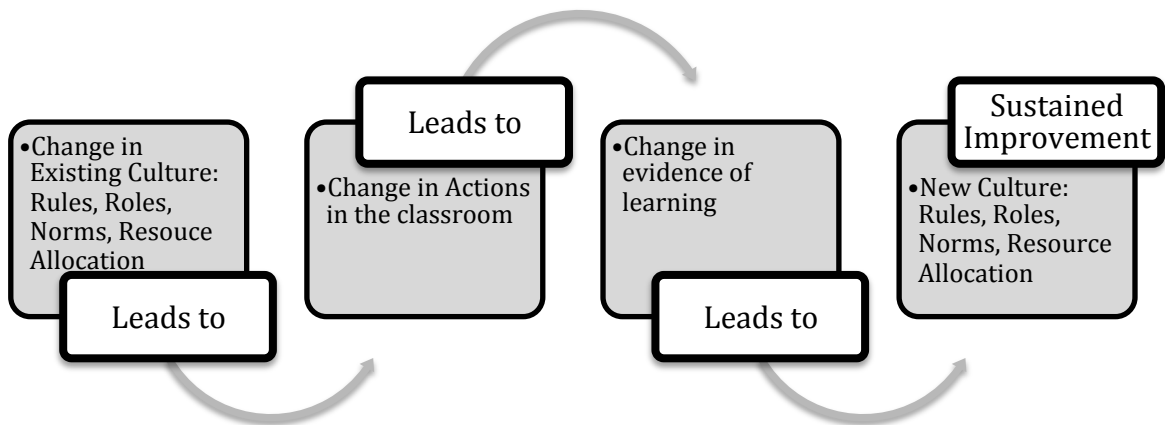
Figure 1-3: How a School Culture Changes

Collaborative Professional Learning Drives School Change. Effective professional learning is essential for transforming teaching and learning, as it results in changed instruction and improved student achievement. In order to support classroom learning, the content and delivery of related professional learning should reflect the local needs of teachers and consider the context of their classrooms. Teacher professional learning, ideally, is situative; learning is contingent both on the context of the individual

learner, the learner's experience, and the social climate of the learning community. Quality professional learning reflects in changes in classroom practices and professional learning communities encourage and continue to develop and refine each other's individual learning (Borko, 2004).

Teachers benefit from opportunities to learn with and from each other to improve instruction. "Teachers individually cannot reconceive their practice and their culture" (Darling-Hammond & McLaughlin, 1995, pg. 601). They need structures and opportunities outside of the school day and environment, as well as opportunities within the school and context of the workday to support professional learning. Local resources, such as university and school partnerships can support curriculum development and research/data analysis effort. Critical friend networks between teachers and between schools, partnerships with community and youth organizations, and teacher involvement in study groups and task forces outside of the school day may provide essential professional learning. Embedded learning opportunities, such as "mini-seminars" in department meetings, examination of student work and assessments, joint planning of curriculum, and teacher driven action research may be especially effective (Darling-Hammond & McLaughlin, 1995).

Collectively, the professional learning opportunities described above are referred to as reform professional development (Garet, Porter, Desimone, Birman, & Yoon, 2001, p. 920). Coaching, mentoring, and study groups are other forms of professional learning under the reform professional development umbrella. Activities that take place during the school day and directly in the context of the classroom with the teacher's students are encouraged, because these activities are more responsive to the way teachers learn (Garet,

et al, 2001). Further, the duration and span of professional learning activities matter. "Both [duration and span] are potentially important in providing teachers with sufficient opportunities for in-depth study, interaction, and reflection" (Garet et al, 2001, pg. 922). The length of engagement in and opportunities for review and reinforcement of professional learning contributes to better retention and implementation of professional learning.

Professional learning sustains professional culture changes over time, by promoting continuity in school churn and faculty overturn. "Professional development may help contribute to a shared professional culture, in which teachers in a school or teachers who teach the same grade or subject develop a common understanding of instructional goals, methods, problems, and solutions" (Garet, et al, p. 922). A continuous focus on teacher content knowledge, pedagogical skill, and review of student data supports effective learning for school transformation.

While extended, job-embedded and contextually sensitive professional development is ideal, workshops serve a legitimate role in professional learning, provided they are relevant to the needs of the learners. True content experts, not always available for extended periods of time, add value to an overall professional development strategy through occasional workshops. Active learning opportunities within workshops and time for future follow up help reinforce professional learning gained during brief professional learning experiences. However, "educators at all levels need just in time, job-embedded assistance as they struggle to adopt new curricula and new instructional practices into their unique classroom contexts" (Gusky & Yoon, 2009, p. 498). As Darling-Hammond

and McLaughlin note above, many strategies can and should be employed to support professional learning.

Sustained professional learning activity over time is clearly important, as is providing job-embedded support in order to meet teachers' needs in a timely manner. Coaches are a way to ensure sustained learning over time in the context of the job. Peer coaches, expert coaches, teacher facilitators, and teacher leaders support learning communities within schools. Professional learning opportunities that provide time to engage actively and collaboratively with their peers can be more effective when facilitated by coaches and experts (Fogerty & Pete, 2010). As discussed above, leadership plays a critical role in developing a learning community to support school change; coaches and facilitators are leaders within these learning communities.

Coaches (expert and peer to peer) are essential to creating and sustaining job embedded professional learning opportunities. Coaches help the school community focus on professional practice and ensure collaborative and dialogic job-embedded learning activities, as a continuous intensive process adaptable to teachers' learning needs. Finally, coaches facilitate professional learning through clear, congenial, and respectful conversations that are both confidential and non-evaluative in nature. Coaching has demonstrated a high return on investment, because it is far more likely to result in classroom practice change than any other professional learning activity (Knight, 2009).

Coaches share leadership with building level administrators and mediate reform efforts with classroom application. Coaching helps schools more readily meet their goals for instructional improvement. Coaches, in addition to their role as perceived expert, also support professional learning by modeling continuous learning - very few who enter the

role are fully acquainted with adult learning preferences and techniques for andragogy. As coaches gain skill and knowledge, their potential for unlocking systemic change in a building increases (Galluci, Van Lare, Yoon, & Boatright, 2010).

Reflective dialogue with teachers is an essential activity of coaching (Peterson, Taylor, Burnham, & Schock, 2009). These conversations are most effective when they are rooted in concrete data and focus on the teacher's role in instructional change. A good coach will not only model techniques, provide information on how to implement change and justifications for that change, but will engage the teacher in critical self-reflection. Some evidence supports that coaching in schools leads to student achievement gains (Peterson, et al, 2009).

Ideal professional learning opportunities to support school change are job-embedded, content-based, and coach learning activities over an extended period of time. Teachers are more likely to change professional practice and culture when they are engaged with their peers in ongoing data based dialogues. Workshops, when well designed and thoughtfully implemented on relevant topics may still have a role in teacher professional learning, but should not be the sole or primary method of delivery. A coach may be a pivotal role in reform efforts at the school level, especially to encourage systemic change in professional culture and teaching practice. However, every school that engages in the turnaround model undertakes job-embedded professional development, with many of the characteristics listed above. When this model works to change organizational culture, what actually happens within the school?

School change literature largely supports the concept of collaborative learning as central to positive transformation, and the feedback loop that contributes to cultural

change contributes to collaborative learning. Popular school change literature emphasizes the concept of the professional learning community (PLC) (Dufor & Eaker, 1998; Dufor, Dufor, & Eaker, 2008; Dufor & Marzano, 2011), a concept built on the communities of practice theory (Lave & Wenger, 1991; Wenger, 1998) – simply, the idea that learning together in teams, teachers will improve their craft and mutually develop skill, as well as socialize each other into the field. In recent years, structuring intentional PLCs to promote professional learning has become a hallmark of school improvement efforts. What is this learning that ideally occurs in these communities? How does this learning lead to change? What can leaders do to ensure that appropriate learning happens?

One model of school change proposes teachers and administrators adopt five learning disciplines (Senge, Cambron-McCabe, Lucas, Smith, & Dutton, 2012). First, teachers and leaders with personal mastery understand their personal vision and goals and recognize what learning is required to improve capacity to meet those goals. Next, teachers and leaders need a shared vision, which connects them by a common purpose to support and sustain learning within schools. They use mental models that incorporate inquiry, action, and reflection lead to positive change in relationships and actions in a learning school. Team learning, in a variety of settings and with a combination of different team members, supports successful school change. Finally, the use of systems thinking supports change through identifying the many complex factors that factor into a school's culture and challenges and experimenting with potential solutions.

Traditions within the American model of schooling interfere with schools' focus on learning-driven positive change. For example, the workday of the teacher has traditionally included instructional time, a preparation period, a lunch, duty other than

14

instruction, and grading; no time is provided for consulting with other teachers or gaining feedback on practice during the day. As preparations periods are often set up around specialist teacher schedules (music, gym, and art), it can be challenging to provide time for teachers assigned to the same grade level or curriculum to meet during the school week in a traditional setting. Each of the five learning disciplines above is dependent on schedules, structures, and other organizational arrangements to provide the opportunity for collective engagement in reflective dialogue and shared vision. Teachers need opportunities to meet with each other to engage with data, learn from each other's experimentation with teaching, provide each other reflective and critical feedback, and share knowledge. In the traditional school day, teachers have little opportunity for such engagement. Effective leadership for change means providing and nurturing a shared vision and fostering unity of purpose, in addition to providing structures to support collective learning and engagement (Senge, et al, 2012).

Schools engaged in the turnaround model attempt to change structures to support organizational learning in ways consistent with the principles in Senge et al. However, turnaround schools rarely succeed in permanently transforming their learning landscape. Authentic collaborative professional learning can transform a school; too often, these efforts become contrived collegiality when the leadership behind the effort is most interested in compliance and fidelity of implementation and is not focused on professional learning (Hargreaves & Dawe, 1990; Hargreaves, 1997; Datnow, 2011). A school experiencing contrived collegiality may be technically performing the same activities as one engaged in true change, but it will not experience the same level of transformation as one engaged in authentic learning-driven change.

Structural aspects of the school affect the teaching and learning culture within its walls. For example, school leadership bears much responsibility in setting goals that ensure schools are learning environments for both the pupils in their charge and their teaching force. Leadership bears the responsibility for creating both a sense of urgency and a clear mandate for change, essential to a shared vision. Leadership leads reform by facilitating the development of "buy in" around reform efforts and helps develop leadership capacity throughout the school. Finally, school leadership continues to seek opportunities for continued improvement based upon past successes (Gering, 2005).

Having the right person in leadership positions in schools is essential as they shape change and are essential to successful transformation. However, transformational efforts fail when architects of the initiative overlook critical roles and responsibilities for leading change. It is the responsibility of a leader to communicate a sense of urgency for change, develop guiding coalitions, guide and communicate a strong and unified vision, empower actors to realize this vision, plan short-term goals by which to benchmark success, scaffold new efforts on prior improvements, and institutionalize the new approaches. To incorporate positive changes into the very culture of an organization requires time, consistency, and continuity between leaders (Kotter, 1995).

In the turnaround model, one of the key structural changes is that of leadership (Elmore, 2002; Elmore, 2008). A school engaging in a turnaround effort typically replaces its principal, with the assumption that leadership has been part of the issue leading to the failure. Because turnaround efforts are brief relative to the life of a school (typically 3 years of funding under a SIG), the learning culture of a school must change quickly. What is different in the leadership of the successful turnaround school as

compared to the failed turnaround school? Are leaders at successful turnaround schools able to leverage other resources when they have neither time nor continuity in their roles? Teacher professional learning, a structural and human resource change, is another important change in the Turnaround School Model. How do leaders contribute to or affect the professional learning of their teachers?

Human Resources in School Change. The Turnaround School model promotes change primarily through a human resource frame. The human resource frame considers the needs of employees (physical, mental, knowledge and health) and how to support those needs. Understanding and supporting human capital is central to human resource management (Becker, 2008; 2002). In supporting human resources, it is important to recognize the needs of employees at three levels – individual, social, and task needs (Wright & McMahan, 2011). First, the model attempts to address human resource concerns by mandating changes in professional learning and this model of learning is intended to meet both individual and social needs to attend to their task (effective teaching). Further human resource support is given by encouraging awards or incentives for teachers who remain in the school and through intensive professional development, assuming that teachers need additional extrinsic motivation to undertake what can be perceived as more work. The model assumes that the majority of issues that lead to a failing school are rooted in human resources.

The assumption that positive change can result through human resource action alone ignores factors crucial to human and organizational behavior. Perceptions of equity within an organization affect social relationships: these social relationships in turn affect the outcome of group goals and norms of behavior. Equity is defined as a sense that the

outcomes and rewards from an organization match the employee's efforts (Mowday, 1996). Although these rewards are traditionally considered financial compensation, teachers are often intrinsically motivated (see Ryan & Deci, 2000) – a sense of equity can develop by a teacher's efforts paying off in student success. Further, a relationship with appropriate reciprocity between leaders and employees can build perceptions of equity within the organization (Mowday, 1996). Perceptions of equity can be rooted in political, symbolic, and structural factors of a school, and may contribute to the success or failure of a turnaround effort.

While the turnaround model supports many human resource changes, nothing inherent to the model ensures the development of quality working relationships through the support and facilitation of skilled leadership. How do leaders change the rules and norms of a school culture in order to affect positive change to meet the human resource needs of their teachers? Next, I will examine how changing structures may further support the needs of teachers as learners.

Structural Changes for School Improvement. Many structural changes, defined as changes to the operations of an institution (rules and policies) and the social architecture within the organization (Bolman & Deal, 2003) accompany the turnaround model. Key structural changes include replacing half of the staff at the school and hiring new leadership. In addition, the school day is extended to allow for both more instructional time and teacher professional development. A full-time coach to support teacher professional learning is an additional structural change in the Turnaround School model. Because the change of the principal and the additional leadership position of the

coach are central to this change effort, I discuss the role of leadership in supporting organizational change within the model.

Leadership is an important factor in organizational change and perceived as a critical human resource support. However, leadership is a function of an organization's social interaction, rooted in the symbols and politics of the organization's culture. Leadership is dynamic, communicated and exchanged through social interaction and is rooted in the distribution of resources. In changing schools, administrators encourage and sustain leadership throughout the school community by using symbolic activities to "shape and reinforce shared values and beliefs, which can produce commitment or solidarity, leading to coordinated activity" (Ogawa & Bossert, 1995).

To this end, managing relationships, building common ground and networks through understanding the emotional and motivational needs of employees may be one of the most critical roles of leader in building positive human resource supports for organizational change (Goleman, 2003). The emotions around a school turnaround are difficult: teachers must face labels of failure, deal with perceptions that they and their students may not be capable of meeting their challenges, and a threatened sense of job security. A skillful leader will recognize this in their employees, reflect on how those engaged in the turnaround effort feel, how it is affecting their thinking, and how it may impact their work. Understanding workers' emotions and behaviors can help direct and sustain positive change efforts (Caruso & Salovey, 2004).

The turnaround school model, with its mandated personnel changes, does little to ensure that the new principal or other school leaders promote leadership throughout the building as an organizational quality. How do people fulfill their roles and

responsibilities to develop and promote positive structures to meet the human resources needs of their schools to help shape a new school culture?

Changing School Cultural Norms. School improvement, or turning around the trajectory of a failing school, happens only through developing a positive school culture. While school culture can be used to mean many things, from the traditions and customs that the students bring with them to school, to the historical processes and structures that maintain the status quo of students in poverty, the key to this change rests in the way the teachers and leaders adapt their feelings, beliefs, and practices to meet student needs (see Erickson, 1987). The changes in human resources and structures of the school could interact to change the culture, provided that the changes meet the needs of the students and teachers and the proper people are really employed for the positions within the school. "On the one hand, school improvement depends on the implementation of new ideas – in the form of both programs and policies – about school organization and instruction; on the other, the refinement of theories about knowledge use depends on having schools that change adapt knowledge and research based in other settings to their own context" (Lewis, 2010, p. 3). The turnaround model changes policy and programs and allows for new organization and instruction – are schools that are successful turnarounds better able to adapt programs created in other contexts to their own?

Building Collective Teacher Efficacy. A teacher's belief in his or her own efficacy (the belief that they can help a student learn) is an important factor in many educational outcomes. It influences satisfaction and retention in the career, student achievement, and whether or not a teacher actively experiments with novel techniques and methods to meet student needs (Tschannen-Moran & Hoy, 2011; Tschannen-Moran,

Hoy & Hoy, 2008). Collective teacher efficacy, or the belief that the collective of teachers within a school can make a difference in student achievement, theorizes that teachers collaboratively engaging in analysis, interpretation, and feedback on the work of teaching will believe they can take on more challenging work, contribute strong effort as an organization to meet goals, and lead to better achievement schoolwide (Goddard, Hoy, & Hoy, 2000; Goddard, 2001). Coaching, as part of a professional learning experience, positively affects teacher efficacy, which in turn can lead to improved collective teacher efficacy (Shilder, 2009).

Fullan and Hargreaves (2012) propose that professional capital is essential to teacher efficacy. In their framework, human capital (defined as economically valuable knowledge and skills), social capital (the quality of interaction and social relationships), and decisional capital (the ability to make discretionary decisions regarding actions) interact with each other and amplify in a school environment. In order to create high level learning opportunities for students, considerable professional capital in the teaching force is needed. If any aspect professional capital (human, social, or decisional capital) is missing or significantly lower than another, then teacher efficacy is greatly diminished.

In what ways does a successful turnaround school build teacher efficacy and professional capital? How do the leaders in building the professional capital of a failing school and what resources are needed? Once the school has changed trajectory, how do they support continued forward progress? The model of turnaround (figure 4 on the next page) enacted at Riverton Elementary may illuminate some of these questions. In this model, the school's pre-existing culture (and its accompanying rules, roles, policies, norms, and resource allocation) experience a series of incremental changes to their rules,

roles, policies, norms, and resource allocation. Over time, these changes result in change in actions at the classroom level, which changes academic performance. The resulting success changes the attitudes and feelings of the professionals who have engaged in the change process, thus transforming a culture.
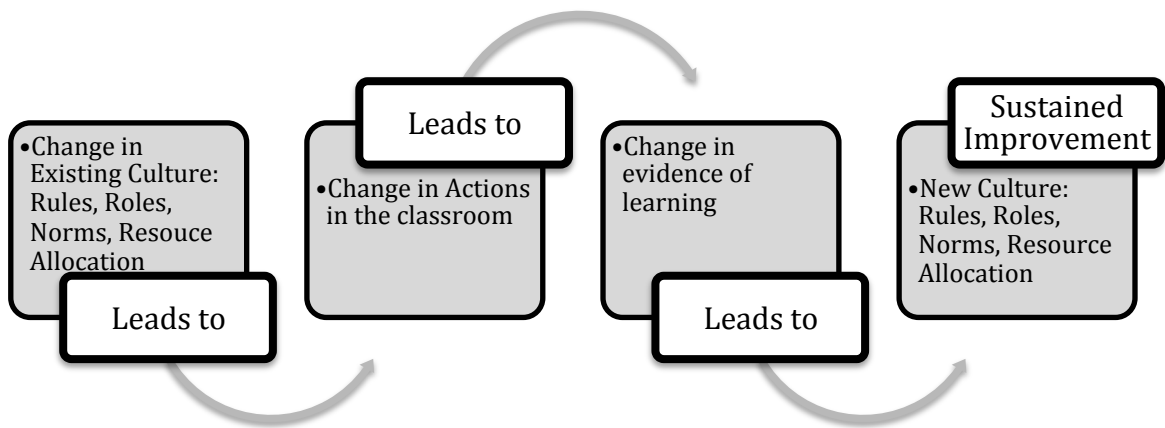
Figure 1-4: The Turnaround Model in Action

Overview of Method

This dissertation utilizes multiple methods, with ethnography as the central organizing method. "Differences in method are not merely alternative ways of reaching the same end or answering the same questions. What distinguishes methods from one another, usually by virtue of their contrasting disciplinary roots, is not only the procedures they use but the very types of questions they tend to raise" (Shulman, 1997, pg. 9). Ethnographic data collection and analysis is central to answering the questions about school culture and

climate; however, as this study asks about student achievement gains and questions the role of investment, quantitative elements are included.

Ethnography is an appropriate method for the study of schools because, as small communities, schools have cultural markers (including social organization, ritual and myth, folk philosophies) and systems of capital exchange. Although traditional anthropological ethnography studies culture on a large scale, I will employ it to examine a small group within an larger established and recognized culture, instead of attempting to situate these questions in the broader context of the entities surrounding the school (Erikson, 1984). Instead of a detailed examination of the entirety of these school cultures, this study will be closely examining a small, local culture of a specific school – Riverton Elementary School, a successful Turnaround School.

Ethnography has long been a tool for developing an understanding of what transpires between teachers and learners, as well as the effects of educational policies on the work of teachers. Conducting ethnography in settings as familiar as schools present a special challenge in "making the familiar strange" (Gordon, Holland, & Lahelma, 2001, pg. 188). Identifying the unique characteristics of an individual school culture may draw on a variety of data sources, including not only fieldwork and interviews, but also quantitative data. "Intersecting analyses focusing on the lives of children, young people, and adults in educational settings still need to be developed beyond the foci of single perspectives. This is a great challenge for educational research, and one the ethnographic approach in particular, with its focus on complex and multi-layered practices and the meanings attached to such process and practices, in in a strong position to make" (p. 199).

Ethnography requires immersion in the culture being studied. In order to gain understanding of the context, history, rules, actions, interactions, and beliefs of participants, it is essential to know participants in their natural environment (Emerson, Fretz, & Shaw, 1995; Atkinson & Hammersly, 2007). While many education dissertations are "compressed" or "condensed" ethnographies (see Jeffery & Troman, 2003) because of limited time, this project is a true ethnography, drawing on studies done in the Portland Public School District over a broad period of time (2011-2015). This long-term relationship contributes to understanding what has happened to the teaching and learning culture at Riverton Elementary School.

This research examines the knowledge and beliefs through the lived experiences of teachers who have engaged in the job-embedded, coach supported school turn around effort at Riverton Elementary School. This study will examine "linkages and processes" within the organization of these schools (Marshall & Rossman, 2011, pg. 91), within an innovative reform-style professional development system. Because this study heavily relies on the perceptions and remembered experiences of the participants, the research questions will be best answered through ethnographic tools of interviews and observations. Of especial importance is the "face to face interactions of members" (Rossman & Rallis, 2003, pg. 95) within the school culture.

Because this study examines a dynamic professional culture and practice over time, a more structured than unstructured approach is desirable. An unstructured approach is desirable when exploring individual phenomena or unique cultures alone (Maxwell, 2005); however, this study compares past experiences and culture—in a sense, functionally two different cultures at Riverton School. Instead of relying purely on

inductive reasoning for theory development and analysis, data collection and analysis will be structured around the conceptual framework that posits structural changes and human resource interventions interact to transform a teaching and learning culture from one of low teacher efficacy to high teacher efficacy.

This study seeks to interpret and understand the experience and interactions of the participants of the intensive job-embedded, coach supported professional development effort, and is a continuation of study from two previous mixed methods studies on the Professional Learning Based Salary Schedule (PLBSS) (Rallis, Churchill, Lawrence, & Darling, 2011; Rallis, Keller, & Lawrence, 2014). A positivist approach does not adequately address the questions of perceived cultural changes and their likely catalysts, and it would tend to ignore individual reports of experience and interactions and depersonalize teacher voice. Instead, I use an interpretivist approach, which recognizes that humans may have vastly different perceptions of truth and works with participants to understand the meaning of their actions (Geertz, 1973). An ethnographic approach capitalizes on the "explanatory" nature of anthropological study, while drawing on the "reflective and active" nature of educational research (Spindler & Hammond, 2000, pg. 24).

Overview of Chapters

In this chapter, I have discussed why the turnaround effort at Riverton Elementary School is of interest and theorized why the turnaround model of school reform can be effective through the conceptual framework provided. While the turnaround model theoretically should work in most educational settings, it often does not produce the results intended

by the funding agencies. In the upcoming chapters, I address the question of whether or not a true change occurred at Riverton and what changed within the school culture. I also address the question of return on investment of this particular SIG grant in the Riverton community.

The organization of the remainder of the dissertation is as follows:

- Chapter 2: Chapter two is a literature review regarding what is known about turnaround schools in the United States. The purpose of this literature review is to situate this research within the greater body of knowledge about turnaround schools. It establishes this dissertation as unique in the combination of ethnographic considerations with return on investment analysis - to that end, because the intervention at Riverton Elementary was targeted to improve literacy and language acquisition for their student population, I examine current literature regarding the value of literacy.

- Chapter 3: Chapter three discusses the methods used in this dissertation in greater detail. I identify and justify my choices of data collection, tools, and analytical instruments and establish why these methods are appropriate to address the research questions raised in the first chapter.

- Chapter 4: Chapter four discusses the turnaround in action. It presents the student achievement results that demonstrate that a change occurred. I discuss the changes in school culture that appear to have happened as a result of the initiatives funded by this grant. I then discuss the economic questions raised in chapter one. I examine the SIG funding as an investment and discuss the social return on that investment (a form of cost-benefit analysis). This chapter

closes with discussion of broader policy implications and potential areas for future research on turnaround efforts.

- Chapter 5: Chapter five discusses various issues raised in the findings chapters, implications of these findings for policy and program planning, and potential areas of future research.

CHAPTER II
TURNAROUND SCHOOLS AND THE VALUE OF LITERACY

This chapter explores two bodies of literature with two main goals; first, I review the

literature on Turnaround Schools to situate my research within current discourse. Within

this literature, I explore definitions of success for turnaround efforts, as well as conditions

for failure and success within these efforts. The second goal of this review is to establish

a theoretical framework to address the second research question (the theoretical

framework for the first question is explored in chapter one). Because the second research

question examines the sustainability and return on investment of the Riverton grant, I

explore a topic related to the main focus of the SIG intervention: literacy, and various

efforts to assign a monetary value to this valuable skill. The value of literacy section

serves as the basis for an estimate of social return on investment with the Riverton grant.

Turnaround Schools

Turnaround schools are schools that select to undertake the turnaround model available as

a choice for improvement under the School Improvement Grant program of the U. S.

Department of Education (DOE) (Terry, N. D.). While the term may imply a certain level

of success in turning around the trajectory of a failing school, the name turnaround school

applies to any school undertaking the model and is not defined by a specific level of

achievement or success in using the model (Ujifusa, 2010). The turnaround model (which

requires the replacement of fifty percent of the staff, job-embedded professional

development, increased learning time for both staff and students, and the selection of a

curriculum model based on student need) is based on a model pioneered by the Chicago

Public Schools from 2001-2008 (Duncan, 2015). As the current turnaround school model under the SIG program is relatively new, this literature review examines current knowledge and thinking regarding schools using this model of reform.

While turnaround school is a concept used in other countries (see Leithwood & Strauss, 2008, 2009), this review focuses on schools in the United States and the U. S. DOE policy specifically using the turnaround model detailed in the School Improvement Grant as a model for school improvement. Some literature uses the word "turnaround" to describe any school that has changed their academic trajectory for the positive, whether or not they have used the SIG turnaround model - this review does not include these papers. The literature on SIG turnarounds falls into these main areas: identifying successful turnaround schools, policy and strategies within turnaround schools, and principal leadership in turnaround schools, discussed below in detail. At the conclusion of this section, I discuss areas of opportunities for additional research and situate this study within its unique contribution to the literature on turnaround schools. Because cost analysis is part of the analysis, I examine current thinking about the lifelong benefit of literacy in a person's economic lifetime.

The literature body about turnaround schools is largely in two domains - first, most studies are single site case studies or multiple site case examples. The second domain is policy position papers and technical assistance. A few conference proceedings are available. This review focuses on the research conducted and on policy papers. The technical assistance papers are omitted, as these are often information for end-users and are not research into the concepts behind turnaround schools.

Identifying Successful Turnaround Schools. The concept of organizational turnaround is not novel, but is an application of a strategy from the business sector to the education sector (Peck & Reitzug, 2014). Currently, no common definition of "success" for turnaround schools exists beyond the accountability guidelines of NCLB. Most studies that seek to identify successful turnaround schools base their judgment solely on student achievement data, ignoring elements that are key to the model that speak to school climate, policies, and professional interaction. For example, one key mandate of the turnaround model is habituation of data use for guiding instruction and policy at the school, but this is not generally used as a criterion for defining the "success" of a turnaround school. Instead, a school's success or lack of success is defined by whether or not student achievement levels meet the goals for improving reading and math proficiency set by the awarding agency. A school that fails to meet their target or sees a decline in achievement is "not improving". No common quantitative definition of "improving" and "turned around" currently exist (Trujillo, 2015).

Hansen (2012) discusses the lack of coherent definitions for the terms "chronically low performing" and "turnaround" when funding agencies and state departments of education decide to intervene with a school's local policies and practices. He identifies two risks in basing grant funding policy on two vague terms: "First, turnaround efforts can be inadvertently misallocated to schools that do not need them while passing over struggling schools that do; and second, the dramatic turnaround strategies prescribed by the Department of Education may disrupt nascent improvement efforts in some low-performing schools that are already engaged in their own (undetected) turnaround, potentially doing more harm than good in such situations" (p.

56). He states that the Institute of Educational Statistics describes current research in turnaround policy as inadequate and that the turnaround strategies outlined are supported with weak evidence.

The use of school level data to identify chronically underperforming schools may be especially problematic, as it masks changes in student population and ignores that some statistical uncertainty exists in deeming students "proficient" on achievement tests, while reducing nuanced information about individual students' strengths and needs within that school to an artificial yes/no binary. This ignores that students within a school failing to meet an appropriate percentage of proficient students could be making adequate or more than adequate growth. Growth may be a preferable metric for assessing the performance of a school, but what constitutes acceptable growth may need to be better defined, as does the length of time that a school fails to meet that growth requirement in order to be defined as persistently low performing (Hansen, 2012).

Given the difficulty with defining and identifying persistently low-performing schools through available measures, defining what constitutes a turnaround is challenging. Some identify a turnaround as moving from the lowest five percentile of schools based on status measures to above the fiftieth percentile in those measures - statistically, this is an extremely unusual event. If this standard were used to identify a successful school turnaround, it is unlikely that any school would meet this criterion. Hansen (2012) proposes identifying a turnaround school by consistent and steady upward progress in both achievement and growth measures over a three-year period of time, with slow, but steady growth of five to ten percentile points over those three years. While less

dramatic than that usually sought by policy makers, this may be more reasonable to expect of truly low-performing schools.

Herman (2012) provides definitions for persistently low performing schools that are not defined statistical goals, but instead place parameters on the criteria used to identify such schools. First, these schools have pervasive, school wide issues, rather than pockets of challenges in student achievement. Low performing schools have "substantially low achievement, rather than hovering near proficiency" (p. 26). Finally, the low performance occurs over time, rather than being a transient dip in achievement. While these parameters help to identify the issues associated with chronically underperforming schools, more specific numerical guidance (as suggested by Hansen, 2012) may be helpful for policy makers in making SIG funding decisions.

Herman (2012) defines turnaround schools as those which start as low performing, per the definition above, and achieve a dramatic increase in achievement scores over three years, and sustain this growth for two years. She states that the literature states that the increase is from the tenth percentile to being able to rise above the fiftieth percentile in school achievement - an enormous range. She also identifies sustainability as an important component for a true turnaround; however, she suggests that two years is an indication of sustainability. Is this sufficient time to determine whether an intervention can truly lead to long-term change? While this information may help contribute to a consistent definition of turnaround, turnaround remains a vague and subjective term.

Myers, Lindsay, Condon, and Wan (2012) assert that policy decisions regarding grants and defining success for grantees have largely been informed by case studies. To this end, they propose a statistical model for defining turnaround success. This model is

32

based on school-level achievement data, and defines persistently low performing schools as those that fail to meet state achievement goals for two years in a row and set the desired rise in achievement levels by ten percent or more. In addition, they add the following criteria based on IES suggestions:

- Examination of school-wide year-to-year changes must show persistent non-negative trends (i.e., non-oscillating, steadily increasing, or holding steady);

- For the various grade levels and subjects tested within a school, there must be a general consistency of increasing performance for year-to-year trends;

- For the final year of data being examined, school-level averages must no longer fall within the poor-performance range;

- Schools' substantial improvement cannot be accompanied with a major change in student demographics (p. 76).

While the Myers et al (2012) criteria are more numerical and suggest a more defined pattern of performance than those discussed in Hansen (2012) and Herman (2012), is two years of failure to meet state goals truly sufficient in understanding whether or not a school is persistently low performing? After all, a change in the assessment used by the state agency could produce two years of failure to meet targets due to implementation dip. Secondly, subtle shifts in demographics occur throughout the year through both teacher and student churn, especially in urban districts. Finally, is nonoscillation a fair criterion? Some oscillation in performance may be present when a trajectory is persistently upward over time.

At the national policy level, the SIG policy appears to have been successful in reducing the number of children in poverty scoring in the needs improvement range on

standardized testing on math and reading. Within the SIG models, the turnaround and transformation models appear to have the greatest success rate with improving achievement. However, twenty-seven percent of turnaround schools fail to make improvement. Another twenty-seven percent experience between a one to ten percent rise in achievement score averages. Forty-six percent of the turnaround schools see improvement greater than ten percent (Council of Great City Schools, 2015). These findings do not necessarily affirm the assertion by Smarick (2010) that most schools do not make dramatic improvement through SIG funding discussed in chapter one. This further illustrates that the lack of common understanding of "dramatic" and "improvement" makes the identification of successful turnaround schools challenging.

Policies, Strategies, and Working Conditions in Turnaround Schools. Are the policies and strategies in schools that successfully turnaround and those that fail to make improvement significantly different from each other? According to Herman and Huberman (2012), in a paper presented at Society for Research on Educational Effectiveness (SREE) in Washington, DC, few differences between turnaround and non-turnaround schools exist. In their examination of 1,042 chronically low performing schools across three states, some subtle differences between the two exist in the survey responses of school principals when asked about their policies, programs, and practices. Among these differences were that principals whose schools were failing to turnaround were less likely to report district level organizational changes. Schools successfully turning around were more likely to have highly qualified, but less experienced teachers, who reported more job satisfaction than their non-turnaround peers.

One case, focused on a mathematics based turnaround intervention in Michigan, focuses on the complexity of developing a turnaround strategy in response to multiple challenges that exist within a failing school. In the school, the main problems were around a lack of cohesive curriculum, inconsistent implementation of strategies, a cycle of "adoption and abandonment" (Peurach & Marx, 2010, pg. 29) of approaches in the school, and isolation of the teaching force. The lack of connection between the programs and initiatives and lack of coordination with data was a further challenge for this turnaround effort. The school was situated in a district with a declining tax base and a changing of the testing system for mathematics during the program in reaction to this financial challenge. Finally, the school leader felt isolated from the district offices, due to a long-standing district policy of site-based governance of schools (Peurach & Marx, 2010). The turnaround strategy, in order to be effective, needed to address these many challenges - it is unclear if the school developed a successful approach.

Turnaround schools had principals with stronger instructional focus than those of non-turnaround schools. Further, turnaround schools were likely to have policies, programs, and practices focused on "the core of instruction" (Herman & Huberman, 2012, p. 3). Targeted instruction and learning time appeared to be a larger focus of the policy guidance at turnaround schools. "It appears from this study that (1) accountability pressures and support from the district combined with (2) strong instructional leadership, (3) strategic staffing (i.e., strategic recruitment, assignment, and "counseling out" of ineffective staff), (4) intensive professional development, and (5) data use focused on identifying and assisting struggling students are key components of a school's turnaround

process. How these components work together and are implemented should be explored further in future real-time, qualitative research efforts" (p. 4).

A teacher-team approach was an additional strategy employed in two turnaround schools studied by Ferris (2014). Strong leadership was an important factor in these sites, but the school leaders capitalized on the skills of the teachers within their teams to help lead the effort. In addition, teachers received additional compensation and professional recognition from their districts for remaining in the challenging setting of the turnaround in this Boston and Pittsburgh based study. In examination of a turnaround effort of a charter school in Massachusetts by Tubin (2015), the concept of a teacher leadership team and additional prestige was also highlighted as a key improvement strategy. The leadership team was perceived as a way of empowering the teaching community to work for the desired change and as a way for the school leadership to recognize and encourage exemplary teachers.

Mette (2014) investigated turnaround schools in rural communities. For these schools, network support through a common professional development group was an important factor in supporting school improvement, and the common professional development time provided school leaders time to network about ideas that were working or not working within their schools. A leader discussed receiving support from this network when such support was not available from the local district administration. Like many of the other turnaround case studies, Mette discusses the importance of community engagement as a strategy in turnaround, along with shared leadership in the schools. Teacher collaboration and team time appeared to be important in the successful schools in this study.

In a study of New York City turnaround schools, Villavicencio and Grayman (2012) discuss essential elements to the successful turnaround of a failing school. First, the school needs alignment of action with goals based on student needs. In addition, a positive working and learning environment for teachers is needed. Finally, the safety and health of students and faculty within the school need to be addressed. In these successful schools, principal quality was highlighted as important to change. Successful schools had principals who created smaller learning community structures, empowered teacher leaders in these learning communities, and sought out specific student subgroups in the data to target with improvement strategies.

Dee (2012) studied schools receiving school improvement grant funding made during the American Recovery and Reinvestment Act of 2009 for evidence of improvement in schools receiving these grants. Focused in California, he found that schools were most likely to make notable improvement from adopting the turnaround model. He suggests that the large staff overturn mandated by the model may contribute to change in academic trajectory in successful turnaround schools.

The working conditions of teachers may be an important indicator in the eventual success or lack of success of a turnaround school. In a study of thirteen schools undertaking the turnaround model (Cucchiara, Rooney, & Robertson-Kraft, 2015), the coherency of policies and leadership within a school affected the working environment of the teachers. While both the improving and not improving turnaround model schools could be described as rigorous and intense working conditions with additional professional learning demands and extended contact time with students, the coherency/alignment of the structures and leadership within the school made a clear

difference in how teachers perceived their work environment and were able to be successful. With the various schools - deemed challenging, positive, or mixed in environment - the work of the teachers was perceived as intense. The organizational culture that resulted from climate made a difference in working conditions within turnaround schools.

The quality and focus of professional learning provided under the turnaround plan may be an important factor in the final success of turnaround efforts. Marripodi and Beard (2013) examined a turnaround school that was considered effective in Detroit. In this effort, teachers received training in data use and differentiated instruction from an external professional development facilitator. Working with the principal, the external facilitator helped identify staff needs in understanding and using data, as well as teaching them strategies for using the information gleaned from these data. In addition, the school incorporated learning walks as a strategy for following up on the use of these strategies. Regarding these strategies, the principal stated, "Teachers have become learners once again and are constantly improving their instructional practice through the professional learning and tools we provide. It is the work we do" (p. 52). These authors believe that this professional learning lead to the development of an "achievement-focused culture" (p. 54) in this school.

Yatsko, Lake, Bowen, and Nelson (2015) discuss the climates in schools leading up to identification as a school in need of intervention. In their study examining multiple SIG recipient schools nationwide, they found trends in implementation that appeared to negatively affect the ability of a school to turnaround. One prevalent trend was that schools tended to use broad, unfocused "kitchen sink" (p. 31) approaches, rather than

focused, targeted, and aligned approaches. Next, fidelity to the stated turnaround plan was lax, and the ability to make personnel changes was limited by cumbersome processes. At the district level, strict timelines set in the grant made it difficult to shape the grant interventions with the necessary nuance to meet the needs of the schools. Finally, when grants were awarded and programs approved, difficulty in inter-district communication often slowed the implementation of the programs through delayed distribution of funds.

The approach to turnaround in the schools appeared to make a difference in the relative success of the turnaround. Yatsko et al describe three common approaches used to structure turnaround attempts:

- Kitchen Sink, or piling new interventions on top of existing ones without a coherent strategy. This approach was marked by a high number of seemingly unconnected interventions as well as an inability on the part of school staff to point to data or a rationale behind the chosen models;

- Scattershot, or using random and often peripheral interventions without a connection to a school's specific needs or a theory as to how they will foster academic improvement. As with Kitchen Sink, staffing in schools employing this approach were unable to connect the intervention with the specific needs of the school's particular student body; and,

- Laser Focus, or using highly strategic interventions that data have shown are connected to and can impact the particular set of challenges facing the school's students and teachers (p. 39).

39

The laser focus approach was the least commonly used among turnaround attempts. Of the schools Yatsko et al studied, these were the most likely to experience dramatic shifts in school culture and performance. While leaders of schools using the other approaches expressed the view that school change couldn't happen without a change in the student body, leaders of the laser focus school were much more likely to dismiss the idea that some students weren't going to improve.

Thus far, focus and school climate for change are identified as important factors in the relative success of a turnaround school. While the term success remains ill defined and vague, a tacit understanding that some schools are successful is evidenced in the papers above. The next section discusses one of the most commonly identified differences between successful and unsuccessful turnaround efforts - Principal Leadership.

Principal Leadership for Turnaround. The role of the principal in school turnaround, the principal's actions, competencies, and skills are widely discussed in current literature. Broad agreement on these actions, competencies, and skills exist. The principal is often credited with acting as the primary catalyst for change. For example, Dodman (2014) identifies the following ways in which principals successfully lead turnaround schools. These actions include establishing an urgent, common goal; creating relationships and institutional accountability; using instructional knowledge for teacher learning; leveraging problems to build a community; and, taking advantage of external incentives (p. 58).

May and Sanders (2013) sought to identify leading indicators to predict which turnaround schools would be successful. In their work, climate and leadership were often

identified in the literature as key factors in the success of a turnaround. For this reason, they assessed principal leadership style via the Multifactor Leadership Questionnaire (MLQ) for several characteristics of leadership style, compared with student outcomes in math and reading. In addition, they asked teachers and other leaders to rate the climate in their building on three factors: " I feel there is a positive climate in my school, The leadership in my school is open to change, and My school leadership is upbeat and creates a pleasant working environment" (p. 47) with a letter grade of A, B, C, D, or F. Key findings in their work included that "turnaround teachers were significantly more likely to assign their principals higher averages on all three measures than teachers in the traditional schools" (p. 48). It does not appear that significant differences between turnaround and non-principals were found in several questions on the MLQ assessment.

Reyes and Garcia (2014), in a case study of a successful turnaround school with a large population of low-income students of a Hispanic/Latino immigrant background, state that the empirical literature on what works in a turnaround school is thin, but once again, emphasizes leadership and a focus on academic achievement as essential factors in school turnaround. Within their case, they found that principal leadership that reflected a good deal of cultural competency with the local community was an important factor. As a way of adapting to their community, outreach programs to parents were incorporated as part of their turnaround strategy. The principal was also credited with encouraging professional engagement with teachers and incorporating the arts of the local community into the curriculum. For example, the principal hired local mariachi musicians to teach music at the school. A focus on the arts and culture by the principal may be part of what made this an example of a successful turnaround school.

Duke (2015) offers instruction to school leaders seeking to undertake a turnaround effort. Key ideas for improving the performance of a school quickly include the ideas that as instructional leaders, principals need to create a sense of urgency, establish order and trust, challenge or vary their teacher's teaching repertoire, and keep the focus on the lowest achieving students. As a leader of change, principals also must understand that their staff will undergo some "unlearning" of habits (p. 16). In order to unlearn the unwanted habits and gain new skills, teachers need to be given time and structures to work with each other. Finally, he encourages principals to seek areas where stability is possible during the change process and maintain patience.

Criticism of the Turnaround School Literature. The turnaround school model is a model dictated by policy - required components of this model include some challenging changes for the schools. First, it is a mandate that half the staff and potentially some of the leadership change as part of the turnaround. The mandated replacement of fifty percent of the teaching force is an arbitrary number in the policy, with no evidence supporting this idea. Further, the SIG policy provides no guidance on identifying staff to replace (Moore Johnson, 2012). Next, professional development and extended learning time are part of the model. Finally, a schoolwide academic focus driven by data analysis is important. Much of the literature published on the turnaround school idea from 2009-present find that schools that were successful turnaround schools engaged in these mandated activities. Much of the literature asserts that these ideas for school improvement are consistent with strategies theorized to work by educational researchers (for example, Brown, 2012).

Is the assumption that schools that undertake the turnaround model who are not successful not truly engaging in the model? Or, could the differences in the success of turnaround schools be attributed to choices made at the local level, such as the level of focus for the intervention, identified by Yatsko et al (2015)? One of the ways that a successful turnaround stood out was to purposefully reflect the local culture as part of the strategy. The turnaround strategy at Riverton Elementary focused on literacy and language acquisition, a need present because of the large number of students whose families arrived in the United States as refugees and speak languages at home other than English. In terms of access to the general education available in United States, English Language Literacy is key for the future success of students in school and beyond.

Defining "Success" for the Riverton Turnaround Effort. In the literature, several attempts at defining what success looks like through quantitative means are presented. Some of these means represent lofty aspirations (e. g. Smarick, 2010), while others suggest a specific amount of steady gain without oscillation from year to year (Myers, et al, 2012) during the intervention. I argue that defining the success of a turnaround through change in achievement alone is too narrow and misses critical changes that directly affect the long-term efficacy of any turnaround. This may account for the lack of cohesive definition in the literature. To this end, I propose the following three questions for identifying the success or failure of a turnaround initiative:

- Achievement change: Does the school make progress towards closing achievement gaps (e.g. is the difference in performance between this school and the state average narrowed) over the grant period? Does this progress continue following grant expiration? Additionally, does student growth

43

exceed the average for the district or state in which a turnaround is located? If

so, this would indicate progress towards gap closure was occurring, as by

definition, students would need to experience faster than average growth to

"catch up" with their peers.

- Professional culture: Does the professional culture within in the school change

    for the better during the grant period? Is the positive culture sustained beyond

    the grant period?

- Community perceptions: Does the broader community in which a school is

    located recognize a change has occurred in the school? Do public perceptions

    of the school (parental comments, newspaper articles, etc.) become more

    positive during the intervention?

If a school makes progress in these three areas, I believe a turnaround is a success. While

the first potential areas for assessing success is quantitative, the others are qualitative in

nature, dealing with human experiences and perception. These questions make for a more

nuanced description of "success" in the turnaround of a school.

Without question, measurable change in academic performance is necessary to

defining and identifying when a turnaround has happened, but as no consensus exists as

to what degree academic performance should improve (as established in the first section

of this review), other measures are necessary. The working conditions for teachers

matter, and thus should remain a part of the equation to determining the success of a

turnaround. The voices of students and the community matter, too. Ferguson (2012)

argues that students are able to accurately assess the quality of teaching and education

they are receiving in their schools, and that student assessment accurately correlates with

school achievement levels. Multiple media resources (greatschools.com, state websites, the opinions of neighbors) inform community opinion about the quality of school - if a school changes to a degree that a community takes notice, it has likely made tremendous change.

The Lifetime Value of Literacy

The benefits of literacy over a lifetime are multifaceted and far-reaching (EU report, 2012;. Bloom, Burrows, LaFleur, & Squires, N. D.) In adulthood, literacy is essential to employment and health (Sum, 1999; Wood, 2010; Berkman, DeWalt, Pignone, Sheridan, Lohr, Lux, Sutton, Swinson, & Bonito, 2004). This is widely accepted in development literature (see Blaug, 1966; Van Fossen, Sicht, & Armstrong, 1991; Martin & Lomperis, 2002), and it is true for people living in developed countries like the United States as well (Heckman & Masterov, 2007). In addition to the positive effects of literacy for the individual, literacy brings additional benefits to society - reducing pressure on social service systems and therefore cost to the taxpayer (McLendon, Jones, & Rosin, 2011). A literate person is not only likely to benefit society through being less likely to have long-term dependence on the social service system, they are more likely to contribute to the tax base through employment (The Literacy Center, 2014). For this reason, the SIG given to support a project like that undertaken at Riverton Elementary School can be considered an investment with potentially measurable return.

Access to reading and writing provides access to learning - once one is able to access knowledge through the printed word, a student is able to learn about mathematical, scientific, economic, and health concepts. At Riverton, literacy and language acquisition

became the focal point of the turnaround effort because of a response to their local population, which is a student body with a large proportion of immigrants and refugees. For turnaround efficacy, a literacy initiative may provide the greatest return on investment. Since the 1960s, an increasing large body of economic literature has focused on viewing expenditures in education as an investment in human capital - that is, an investment that can be reasonably expected to provide a greater return back to society than the initial expenditure (Psacharopoulos, 1995).

Investing in skill formation for young children yields a high return on investment to society through both the child's future employment access and through savings to major social welfare and wellbeing programs. In a study of an early education program focused on literacy acquisition, the benefits to society outpaced the expense of the program by 8.74:1 in 2004. "Early interventions targeted toward disadvantaged children have much higher returns than later interventions such as reduced pupil-teacher ratios, public job training, convict rehabilitation programs, tuition subsidies, or expenditure on police. At current levels of resources, society over-invests in remedial skill investments at later ages and under-invests in the early years" (Heckman, 2006, paragraph 12). Major returns in this study included higher salaries as adults, fewer arrests and incarcerations, lower welfare use, and lower rates of out-of-wedlock births.

Hanushek and Woessmann (2012) identify cognitive skills, including literacy, as an important factor in the economic growth of a country. They theorize that cognitive skill is an important component of human capital needed for a country's economic growth. To test this idea, they analyzed NAEP reading and math test results from many developing countries and the United States. In their analysis, general cognitive skill

(reading and mathematics) correlates with years of schooling, and both appear to be a significant factor in a country's economic growth. They closely examined the educational differences of immigrants in the United States as part of their analysis, and the education available to immigrants makes a difference in their cognitive skills. They find that immigrants have economic returns that reflect the educational system of their home country. For immigrants from developed countries, these can be quite different from those coming from under-developed countries or war zones (as is the case of the population at Riverton Elementary). Further, they find that policies that support basic education for the general population are likely to support country-wide economic growth because they help better identify the top performers in a population and grant access to further economic achievement. "We find evidence that both providing broad basic education – education for all – and pushing significant numbers to very high achievement levels have economic payoffs" (p. 28).

Illiteracy and low literacy has tremendous social costs, because it affects a person's ability to graduate from high school. McLendon, Jones, and Rosin (2011) identify several ways in which a lack of educational attainment at a personal level results in increased cost to society. People with no high school education are more likely to live in poverty in their lifetime - and, are more than twice as likely to live in poverty than people with a high school diploma. "On average, each high school dropout costs the U.S. economy about $260,000 in lost earnings, taxes, and productivity over his or her working lifetime, compared with a high school graduate" (McLendon et al, 2011., p. 5, citing Amos, 2008). With the trend towards reduction in the low-wage, low skill workforce in

the United States, the likely cost of low levels of education is likely to increase in the next several years.

"The amount of education received is positively correlated with earnings...more education is associated with higher expected income in the course of one's life" (Checchi, 2006, pg. 7). This observation is global and spans differences in economic development and holds true for men and women, although women earn less than men on average and have slightly less participation in the labor market than men in developed countries. Checchi further explores education as a development of human capital, noting that the more resources that are invested into schooling (like attention to curriculum and libraries), the longer students are likely to attend school - he describes a "multiplicative effect of educational resources" (p. 84) positively affecting attendance and therefore development of human capital. He also notes that peer group is influential in the quality of education - students who are educated with successful peers are more likely to persist and further develop. This may be relevant in an analyzing an investment like the SIG intervention at Riverton, because as the peers within the school became more successful, this may have been a factor in the continuing improvement of the school. In discussion of the returns on the investment of education, Checchi asserts, "differences in education explain differences in earnings, even accounting for unobserved differences in abilities, and these outcomes can be taken as evidence for a productivity-enhancing effect of schooling" (p. 167). While secondary education has a bigger impact in future earnings and human capital development than primary, access to secondary education is limited without the primary foundation.

School quality has a significant impact on whether or not a student persists through high school graduation. Students who study in systems with schools that are below national achievement averages are a greater risks of dropping out of high school, and this risk is disproportionately higher for students of color or who speak languages other than English as their primary language. While some studies have been conducted over the effect of the quality of middle school on high school performance, and many have been conducted on education reform to improve high school graduation rates, the many factors that contribute to the dropout rates need to be better understood, given the long-term impact on wages and lifetime earnings (Murnane, 2013).

Hernandez (2011) identifies literacy levels at the third grade level as being an important indicator for high school graduation. In a long-term study of students born between 1979 and 1989, students who were not proficient in reading by third grade were the most likely to not graduate from high school. Of those students without basic proficiency, twenty-three percent fail to graduate or graduate on time. This rate was much higher in students of color, where the rates rose to thirty-one to thirty-three percent. When poverty was added as a factor, students who had been poor and failed to read proficiently by third grade were three times more likely to dropout than students who had never been poor. Clearly, literacy at the elementary level is necessary for success in later schooling. When reaches proficiency in reading by third grade, the dropout or failing to graduate on time rate falls to four percent.

Lynch (2004) identifies investment in early childhood learning as providing a substantial return to society. When early literacy and other quality educational opportunities are extended to children living in poverty the return on investment is at

least 3:1, both through savings accrued from reduced reliance on social service programs and increased lifetime earnings for the recipients of these programs contributing to the tax base. The programs studied by Lynch were interventions aimed at the preschool level that appeared to have a positive effect on high school graduation and personal economic outcome for the students who participated.

Economic benefit of literacy interventions, in summary. In educational economics, it is clear that attainment of secondary education is essential for personal economic outcomes, and that these personal economic outcomes lead to benefit to society. The social return on high school graduation is generated through two pathways: first, in savings due to reduced use of the social service system, and second, through increased lifetime earnings and greater participation in the economy. It is difficult to achieve a secondary education if the primary education is insufficient, especially if one of the key missing skills is literacy. Being unable to read at grade level in the middle of elementary school is a significant factor in high-school graduation rates. This becomes an even greater factor when poverty is also a factor.

For this reason, if a turnaround effort like Riverton successfully boosts the literacy proficiency rates for students, it can be reasonably assumed that more of these students will graduate from high school. With more students reading at grade level in the middle elementary grades, the effect of poverty on graduation rates may be lessened. The resulting social return on this grant would occur through the better economic outcomes available to those who have achieved a high school diploma.

Beyond the tangible returns that a program like Riverton's literacy intervention could bring, it should be noted that Riverton students are often the first generation of their

family using English as a primary language for reading, writing, and speaking. A child with elementary proficiency in written English may represent a considerable improvement in quality of life for parents who are new to this country and needing to communicate with English speakers on a day-to-day basis. While it is not ethical to use a child or family member to translate in medical or legal situations, many other casual interactions of day to day living may become easier as a result of a program like this. The Riverton SIG grant was large - the largest awarded in the state of Maine over the several years these grants were awarded. However, with the laser-focus initiative on literacy and the multiple benefits that proficient reading brings in a lifetime, this grant may have a social return on investment that exceeds the large expenditure.

CHAPTER III
METHODS

Introduction

Understanding the efficacy of the use of grant monies to improve the performance of a

public school is a complex venture; as such, this study employs multiple methods. First,

the study seeks to understand if a change truly occurred in Riverton Elementary School

and characterize that change. The Portland district theorized that by focusing on literacy

and English language acquisition for the students through changes in teacher practice, the

achievement trajectory of the school would change. This theory of action called for

examination of both school culture and climate through ethnographic means and the

student achievement through quantitative analysis. Beyond the questions implicit in the

district theory of action, however, are several economic questions - did the investment of

the SIG monies into Riverton Elementary lead to a sustainable change? If so, how? What

is the return on this investment? To answer these questions, this study draws on both

qualitative and qualitative tools and techniques in a convergent mixed methods design

(see Creswell, 2015, pg. 6). The research questions guiding the design of this study are:

> R. Q. 1: What structural and human resource changes occurred in Riverton
>
> Elementary School during the SIG funding time-period? How did these changes
>
> shape a new culture of professional teaching and learning?
>
> R. Q. 2: Did the investments in Riverton's turnaround effort lead to long-term
>
> improvement?

Research Design and Rationale

In chapter two, I provide guiding questions for evaluating the efficacy of a turnaround effort as a potential model. This research design is largely framed to collect and analyze data that inform the three areas specified in this model: achievement change, professional culture, and community perceptions. While most of the literature in chapter two focused on student achievement data as a means to assess the efficacy of a turnaround effort, I argue that the professional culture of the school and community perceptions of the school are equally important in understanding whether or not a true turnaround has occurred. Therefore, the design of this study is, at its roots, an ethnography.

Ethnography can include data from multiple sources, including not only interviews and observations, but also quantitative tools (Pelto & Pelto, 1978; LeCompte & Senschul, 2010). The characteristics of schools that successfully turnaround are explored in the literature as identified in chapter two, and the action of leadership is well explored. However, Riverton Elementary School has characteristics that make it unique, idiosyncratic, and interesting. "Ethnography takes the position that human behavior and the ways in which people construct and make meaning of their worlds and their lives are highly variable and locally specific" (LeCompte & Senschul, 2010, pg. 1). The details of the qualitative design will be discussed below.

However, Portland Public Schools' use of the SIG funds at Riverton may have broader implications for schools who wish to undertake a similar change initiative, as well as the policy-makers who create funding opportunities for schools wishing to make a change. For this reason, it is important to establish whether or not a change in the academic trajectory of the school truly occurred. While the initial analysis conducted by

previous studies implies that such a change had occurred, a deeper look is merited. Additionally, identifying return on investment in this grant is important in considering whether or not this grant created a sustainable change. These questions demand some basic quantitative information from economic methods. These methods will be further explicated after the qualitative discussion.

Qualitative Components. The qualitative aspects of this design are primarily focused on the first research question:

- What structural and human resource changes occurred in Riverton Elementary School during the SIG funding time-period?

- How did these changes shape a new culture of professional teaching and learning?

Ethnography is an appropriate method for the study of schools because, as small communities, schools have cultural markers (including social organization, ritual and myth, folk philosophies) and systems of capital exchange. Although traditional anthropological ethnography studies culture on a large scale, it is used here with a small group located within a larger established and recognized culture, instead of attempting to situate these questions in the broader context of the entities surrounding the school (Erikson, 1984). This is not a detailed examination of the entirety of these school cultures, instead this study examines a small, local culture of a specific school.

Ethnography is an established tool for understanding what transpires between teachers and learners, as well as the effects of educational policies on the work of teachers (Woods, 1986; Frank, 1999). Conducting ethnography in settings as familiar as schools present a special challenge in "making the familiar strange" (Gordon, Holland, &

Lahelma, 2001, pg. 188). Identifying the unique characteristics of an individual school culture may draw on a variety of data sources, including not only fieldwork and interviews, but also quantitative data. "Intersecting analyses focusing on the lives of children, young people, and adults in educational settings still need to be developed beyond the foci of single perspectives. This is a great challenge for educational research, and one the ethnographic approach in particular, with its focus on complex and multi-layered practices and the meanings attached to such process and practices, is in a strong position to make" (p. 199).

Ethnography requires immersion in the culture of interest. In order to gain understanding of the context, history, rules, actions, interactions, and beliefs of participants, it is essential to know participants in their natural environment (Emerson, Fretz, & Shaw, 1995; Atkinson & Hammersley, 2007). While many education dissertations are "compressed" or "condensed" ethnographies (see Jeffery & Troman, 2003) due to time constraints, this project is a true ethnography, drawing data collected over multiple years and visits to the Portland Public School District. This long-term relationship contributes to understanding what has happened to the teaching and learning culture at Riverton Elementary School.

This study examines the knowledge and beliefs through the lived experiences of teachers who have engaged in the job-embedded, coach supported school turnaround effort at Riverton Elementary School. The linkages and processes that inform and connect the community within this school are of special interest (Marshall & Rossman, 2015), within an innovative reform-style professional development system. Because this study heavily relies on the perceptions and remembered experiences of the participants,

the research questions will be best answered through ethnographic tools of interviews and observations. Of especial importance are the "face to face interactions of members" (Rossman & Rallis, 2011, pg. 93) within the school culture.

Because this study looks at a dynamic professional culture and practice over time, a more structured than unstructured approach is desirable. An unstructured approach is desirable when exploring individual phenomena or unique cultures alone (Maxwell, 2005); however, this study compares past experiences with the culture of today. A positivist approach alone would not adequately address the questions of perceived cultural changes and their likely catalysts, and it would tend to ignore individual reports of experience and interactions and depersonalize teacher voice. To this end, I use an interpretivist approach, which recognizes that humans may have vastly different perceptions of truth and works with participants to understand the meaning of their actions (Geertz, 1973). An ethnographic approach capitalizes on the "explanatory" nature of anthropological study, while drawing on the "reflective and active" nature of educational research (Spindler & Hammond, 2000, pg. 24).

The two traditional tools of ethnography, interviews and observation, compose the core of the qualitative component of this research. Shadowing plays a large role in data collection for this project. This will be discussed in detail in the procedure section below. Following this, I address the methodology behind the quantitative components of the study.

Quantitative Components. The quantitative portion of this research center on the second research question:

56

- Did the investments in Riverton's turnaround effort lead to long-term improvement?

Before answering the question about whether the investment into Riverton lead to long-term, sustainable change, it is important to establish that a change in trajectory actually occurred. To this end, I examine Riverton achievement scores on the New England Common Assessment Program (NECAP) over the grant period by comparing the achievement and growth scores of Riverton students today to their pre-grant performance. I also compare Riverton to the state averages on the NECAP tests to see if the achievement gaps between Riverton Elementary students and students in the rest of the state of Maine are closing.

After examining the change in student achievement and growth scores, the question remains regarding long-term sustainability. To address this question, I employ social return on investment (ROI). An economist friend, when asked about background literature on return on investments in education, said, "we don't do ROI on education - education is ALWAYS considered beneficial to the economy." Yet, the questions "how beneficial" and "was it worth the cost" are still posed by policy makers and the public. However, cost analysis, as a tool for evaluation, considers the comparison of cost of various interventions against the benefits expected from the interventions and can help people making decisions about educational programing choices reach a more informed decision about their investment of time and money (Levin, 1983). Social return on investment (SROI) is a way of measuring impacts and outcomes in social programs, especially in the health and social services sectors (Millar & Hall, 2013) and cost-benefit analyses are gaining importance as a way of assessing the benefit or educational

programs (see Daziel, Halliday, & Segal, 2015; Hout, 2012; Reynolds, Temple, White,

Ou, & Robertson, 2011) The question about sustainability can be asked through two

important lenses - first, was the school able to continue to improve instruction; and

following the theory of action of improved teaching leading to improved achievement

did student educational achievement continue on the upward trajectory in the years

following the expiration of SIG funding? Next, what is the effect on improved English

Language Literacy on the students, and by ripple effects, their community? Beyond the

question of whether or not the school can continue supporting improvement post funding,

did this investment benefit society in a broader sense?

      "Investment in education behaves in a more or less similar manner as investment

in physical capital" (Psacharopoulos & Patrinos, 2004, p. 118). To understand the

benefits of investment into this specific educational program, I estimate the effect of

English language literacy on a lifetime of educational outcomes, earnings, and savings to

society. To address these questions, I consider the larger value network (Allee, 2011) of

the Riverton School community. This analysis involves converting "intangible assets

such as human knowledge, internal structures, ways of working, reputation, and business

relationships into negotiable forms of value" (Allee, 2008, p. 5). English language

literacy has social impacts that, while not directly monetary in nature, result in tangible

saving through reduced use of welfare benefits and imprisonment and improved health

outcomes (Psacharopoulos & Patrinos, 2004). To this end, I will address some of the

benefits and outcomes of this grant qualitatively, describing the benefit in words instead

of attempting to monetize benefits that hold social value, but are difficult to assign capital

value.

Setting and Participants

The setting for this study is Riverton Elementary School, a school in the Portland (Maine) Public School district (PPS). The school is located in Maine's largest school district, with eleven elementary schools (portlandschools.org, 2015). Portland is the largest city in Maine, with a population of 66,666 people in 2014. The city is considerably more diverse than the state of Maine, with fifteen percent of the population consisting of people in minority racial/ethnic groups compared to the state average of slightly less than five percent (US Census Website, 2015). A key reason that Portland has a larger population of racial and ethnic minorities than the rest of the state is because the city is home to a large, active refugee center (see http://www.ccmaine.org/refugee-immigration-services/faqs). Recent immigrants to Portland include people from Somalia and other countries in Central Africa, Iraqis, Afghans, and Russians. Riverton Elementary, situated in the northwestern end of the city, has a student population that represents this incredible diversity, with over twenty-two distinct languages and dialects other than English spoken as first languages by students and their families in the corridors (as confirmed in a site visit to the school).

In many ways, Riverton shares common characteristics with many struggling schools across the nation. The school has many students who are eligible for the federal government's Free or Reduced Lunch Program meaning their parents have an income level that is less than or equal to 180% of the federal poverty level. In 2011, 320 out of 407 total students qualified for free lunch (family income of 130% of poverty level or less) and another 10 qualified for reduced lunch, meaning approximately 81% of the school qualified for the program (Portland Press Herald, 2015). According to **Volunteer**

Maine (2015), the school has a large number of students with special education needs, as well as a large number of English Language Learners.

Riverton Elementary School can well be described as a "high needs school" based on the demographics of its student body (Johnson, Kraft, & Papay, 2012). As such, the achievement rate of this school reflected that typically expected of high needs schools at the beginning of the SIG intervention, when it was recognized as among the persistently lowest achieving schools by the Maine Department of Education (McCrea, 2015). The SIG awarded to Riverton was unusually large for the state of Maine, which awarded nearly 32% of its $10,681,819.00 to Riverton School, with the remainder being divided between five other schools. In the years since the Riverton SIG was awarded, total SIG awards from the state have ranged between $1,600,000 and $1,800,000. The $3,386,154 given to Riverton makes it an unusual and unique case within the SIG recipient schools in this state.

Participants in this research had many different roles in and around the school. While I did not directly study students, I did observe students at multiple grade levels in the act of learning at differing points over two years. Other participants who played a larger role in this research include the literacy coach for Riverton School, an outside literacy consultant, the principal, grade level teachers, the Chief Academic Officer for PPS, and union leaders. In addition, several teachers from Lyseth School, another school within PPS, discussed Riverton School in interviews about professional learning for another project.

Table 3-1: Detailed Participants Information and Associated Data Sources

Participant Role	Level of Participation	Data Source
Students	Observations - no interaction	Classroom notes
Literacy Coach	Shadowed Observations Formal/Informal Interviews	Fieldnotes Transcripts
Literacy Consultant	Observations of meetings, facilitation of PD Formal/Informal Interviews	Fieldnotes Transcripts
Principal	Observations Interviews	Fieldnotes Transcripts
Teachers (all, K-5, plus SpEd and ELL specialists)	Observations Interviews	Fieldnotes Transcripts
Union Leadership	Interviews	Transcripts
Chief Academic Officer	Interviews	Transcripts

Instruments and Data Sources

This dissertation draws on data collected during a four-year relationship with Portland

Public Schools and three years of specifically focusing on Riverton School in this district.

Because this research design is, at its core, ethnography, the hallmark data collection

tools of observation with corresponding fieldnotes and in-depth interviews are the

primary methods used to understand the cultural shift (LeCompte & Senschul, 2010) in

Riverton Elementary School as a result of the SIG funded intervention. Additional

sources include the teacher professional development database and four years of high-

stakes testing results in the NECAP averages of the students and other information
retrieved from the Maine DOE Data Warehouse. The interviews, conducted by Sharon F.
Rallis and me, include Riverton classroom teachers, their principal, literacy coach, and a
key professional development leader, as well as notes from shadowing observations. The
observations occurred at various points over the 3 year relationship, in various activities,
including meetings, classroom instruction, hallway conversations, and professional
learning gatherings.

Table 3-2: Data Resources and Documentation

Resource	Details	Documentation
In-depth Interviews	18 Teachers 3 School Level Leaders 2 District/Union Leaders	Audio recording (c. 20 hrs.) Transcripts
Informal Interviews	2 School Level Leaders	Fieldnotes
Observations • Meetings • Hallways • Classrooms • Planning Periods • Professional Learning	Multiple days over three years	Fieldnotes
Teacher Professional Development Database	216 individual professional development logs	Archive data
Student Achievement Data	NECAP	Maine DOE Data Warehouse
SIG Grant Expenditures	Monitoring and Evaluation report Maine DOE SIG application Federal DOE SIG application	Federal DOE website Maine DOE website

The quantitative data sources described in this list address the questions of whether or not a measureable turnaround occurred in Riverton Schools, as well as the question about how the investments made during the grant may or may not lead to long-term sustainability. Student achievement is commonly assessed through standardized test scores (Harris & Sass, 2011): at the beginning of this research, I selected two standardized tests - one that provides a summative assessment of student learning (the NECAP) that categorizes student achievement by level of proficiency and one that provides formative feedback (the NWEA Measure of Academic Progress, or NWEA MAP) and can be used to assess student growth. Assessing student growth may be a more accurate way of assessing the quality of teaching and learning occurring in a school (Culpepper, 2014). However, the NWEA results were not provided to me in time to inform this dissertation. I had planned on using grant expenditure documents from the school district to assess what investments were made into Riverton school and how we can expect those investments to return public good (Lee, Aos, Drake, Pennucci, Miller, & Anderson, 2012). However, these documents were not available at the time of writing.

Procedures

In this section, I describe the procedures used during the qualitative data collection, as well as those used for mixed methods and quantitative analyses. The primary qualitative methods used included in-depth interviews, informal interviews, shadowing, and observation. One mixed method procedure informed this work - the analysis of the Professional Learning Database. The quantitative procedures will be described at the close of this section.

In-Depth Interviews. In-depth interviewing differs from the many ways interviews are commonly used in our culture. While interviewing is a common experience (part of obtaining a job, working with a doctor, or police officers investigating), social science in-depth interview seeks deeper meaning than simply asking "what happened" (Lucas, 2014, p. 388). Qualitative researchers use interviews as an opportunity to probe for deeper meaning through additional questions, which look for information about what and how something happened, as well as examples that help identify or confirm something happened, and investigate perceptions about what happened. For this project, Sharon and I conducted joint interviews with the teaching force at Riverton and Lyseth Elementary schools.

We used a semi-structured approach to these interviews. The semi-structured approach allowed us to investigate the idea about how professional learning can affect student learning, because it provided flexibility to follow interesting answers further while containing enough structure to elicit answers relative to our topic (see Drever, 1995; Rabionet, 2011). We structured the conversation around the theory of action identified in the 2011 study, which is:

> If teachers are compensated on the basis of their professional learning, their salaries will increase and they will become agents of their own learning. They will build skills and knowledge, both individually and collaboratively, to improve their instructional practices and a broader culture of learning in the schools. These improvements will result in increased student learning (Rallis, Churchill, Lawrence, & Darling 2011, pg. 5).

We provided a graphic example of the theory of action, and explained how we had visited the district in 2011 to evaluate the Professional Learning Based Salary Schedule (PLBSS) system. At this point, we returned to identify how teacher learning could be tied to student learning. Guiding questions included the following:

1. What professional learning have you engaged in that you know you have used in your classroom and has it worked for your students? (Follow-ups included requests for specific examples and "how do you know"?)

2. What informs your choices in professional learning participation? (Examples included advancement in the salary schedule, student need they had identified, etc.).

3. What has been most valuable to you in your professional learning? (Follow-ups involved asking for detailed examples and what one assigns value to in professional learning).

We spoke with teachers for about 45 minutes. In these conversations, we received many examples of how teachers directly used professional learning in their classrooms, especially focused on the Teachers College/Lucy Calkins' Reading and Writing Workshop professional development at Riverton. During these interviews, we employed member checking as part of the interview technique (Creswell & Miller, 2000), by paraphrasing what we believed we had heard to the teachers. This sometimes led to additions to the original statement, confirmation of similar experiences by the other participants, or even correction of something we had misinterpreted. This allowed for some built-in triangulation for our understanding of these data

Shadowing. Shadowing, a qualitative technique that involves closely following a person in the workday over an extended period of time, was a major component of data collection for this project. A researcher gathers information about the setting by asking questions and taking notes on what occurs during the day. Unlike simply interviewing or observing, shadowing has the advantage of obtaining both the participant's perspective on their actions, their perceptions about the actions of others, and the perspective of the observer (McDonald, 2005). "Shadowing has the ability to capture the brief, fragmented, varied, verbal and interrupted nature of organizational life (Weick, 1974). It can help organizational researchers not only to answer what and how questions, but, because of its singular capacity to link actions and purpose, it can also help address many important why questions" (p. 458).

Shadowing has some advantages for data collection, including inherent triangulation, but it also has challenges. Specifically, data management with shadowing data can be difficult, as notepads and computers for note-taking can be perceived as a potential distraction to the people who are being observed (McDonald, 2005). To address issues of data management, I brought a small notepad when observing in classrooms and my smartphone. Because Riverton has become a school where "teaching is a public practice" (interview), students and teachers are very comfortable with being observed and seeing adults taking notes in their classes, as considerable interest in the Riverton project exists among various constituents (including district personnel, other teachers, professional development providers, local universities, and grant evaluators).

Observation. Observation is considered the central method to any cultural ethnography. In general, ethnographic observation involves living in the context of the

culture for an extended period of time, learning and using the language of participants, participating in daily routines and rituals in their intended context, using casual conversation as opportunities to informally interview participants, and recording field notes (DeWalt & DeWalt, 2011). Observation is, thus, a critical component to organizational ethnography. It is necessary to observe individuals in their day-to-day activities in the context of their natural environment (work) within the organization to understand and bring meaning and context to the other qualitative data methods of interviewing and document review (Eberle & Maeder, 2011). During observation, I had the opportunity to witness teachers teaching and participating in professional learning together, and to speak informally with school leaders (the principal and literacy coach) and community members. The information gathered during the observations helped bring life to what was stated in interviews - I saw teachers actively engaged in collaborative work to plan and develop curriculum choices for the next year, I heard a parent speaking about what she called, "the incredible improvement of the school", and witnessed the principal support her workers through encouraging words and bringing food to meetings.

Database Analysis. Analyses of this database involved mixed methods. The database in which the professional development records for each teacher are kept is large - I selected 216 records of teachers from schools identified by the district as interesting for examination of professional development trends and student learning, as part of an earlier study. The records were of every teacher who had worked in the selected schools since the record keeping had begun, which was with the 2007-2008 contract (Rallis, Churchill, Lawrence, & Darling, 2011). The records of Riverton teachers were included in this sample.

Records were saved as word files and uploaded into the Dedoose (2015), a qualitative and mixed methods research platform for data management and analyses. I worked with Amanda DeSoto, a research assistant assigned to this earlier project, to code teacher records by the type of professional learning they engaged in (either district provided, a college course, an independent project, or book study) and the topic of the course (mathematics, poverty, English Language Learning, Literacy, English Language Acquisition, history, science, and more). Each of us coded half of the examples, and then we went through and checked the others to ensure inter-rater reliability.

This procedure was both qualitative and quantitative in nature, because coding and classifying teacher learning was a qualitative activity. However, we quantified teacher participation in the system by counting examples of each of the activities. These data were later compared with student achievement data to examine the question of whether or not participation in teacher professional learning would lead to improvement in student learning, as measured by standardized test results. The integration of these various data sources (Fielding, 2012) led to the initial identification of Riverton as a school of interest, they also speak to the participation of teachers in professional learning outside of the job-embedded effort in Riverton. In addition, these data support the assertion about broader interest in the Riverton turnaround in Portland Public Schools - they provide evidence of teachers outside of Riverton seeking the professional learning providers who were working directly with Riverton.

Cost and Output Definition and Identification. Inputs of education for cost analysis can be money, physical resources, or less tangible resources like time - all of which could be used for other purposes, but are used for the purpose of teaching and

learning. When analyzing costs, it is important to focus and define the inputs and the effects that one hopes to achieve from the inputs (Woodhall, 1987). In the case of Riverton School, I am selecting the costs and resources that went above and beyond normal per-pupil expenditures and were supported by the grant monies primarily. However, aspects of the turnaround plan would change how the resource allocation of the school's normal budget was used. I seek to identify cost changes that occurred as a result of the intervention, as well as those directly associated with grant expenditures.

Defining the benefit(s) or output of this grant is also complex. "Additional lifetime earnings of more highly educated workers provide a crude measure of the economic benefits of education, but a full cost-benefit analysis of education requires many additional calculations to account for other factors" (Woodhall, 1987, p. 398). While it is tempting to make a leap to increased literacy increasing lifelong earnings and a return on investment to society, more immediate outputs may make the effects of this grant intervention more clear. For example, the number of students achieving proficient or above on the high stakes testing in literacy changed during the initiative - this output is more clearly linked to the logic of the intervention. A change in school churn (overturn of both students and teachers) may also be an appropriate output tied to the grant. While more difficult to quantify, the increase in teacher efficacy in this building is another appropriate output.

According to multiple world treasuries (see the New Zealand Treasury CBA guide, 2015, for example), only real costs and clearly linked monetary benefits should be used to create cost-benefit arguments - when the benefits are linked to a public good that may be difficult to define, using qualitative descriptions to describe the benefit is more

appropriate. Teacher efficacy is one such measure - it is difficult to place a monetary

value on this critical aspect of teaching practice. Another example is the good that

literacy at the elementary level adds to the value of a lifetime. Because it is difficult to

monetize in a rapidly changing economy, it is difficult to determine a precise sum to the

added value this skill brings to a lifetime. For this reason, I choose to make inferences

about potential returns to society through logic and qualitative description.

Table 3-3 details the specific funding items identified by the grant that I intended

to get detailed information on at the outset of this research. Because the district did not

provide much of this information, I discuss potential costs and potential funding sources

in my findings chapter. The table remains in this section as a reminder for future research

opportunities.

Table 3-3: Inputs and Outputs of the Riverton Turnaround Initiative

INPUTS	Associated Cost	Source
Books	unknown	District records
Additional Staff (Permanent Subs)	Approximately $150,000 year	SEA contract
Grounds Improvement	unknown	District records
Professional Developer	unknown	District records
Additional Coaching Time	.5 FTE - possibly $65,000/year, but unknown	District records, SEA contract
Extended School Day	unknown	Interviews District records
Curriculum Guides	Approximately $6,000	Heinemann Website District records
OUTPUTS	**Associated Effect/Return**	

Student Achievement	Students reaching proficiency or above	Maine DOE Data Warehouse
	Change in peer group over time	Qualitative Data/Achievement Data
School stability	Churn rate of school changing	District records
Teacher efficacy	Teacher confidence that they have the skills and knowledge to be effective in the classroom, thus making them more effective	Interviews, observations

Data Analyses

Rooted in my theoretical framework, I analyze both quantitative and qualitative data seeking a well-rounded and richly detailed story of what happened at Riverton Elementary School. First, I describe the evidence from the testing data that supports that an interesting change occurred in Riverton Elementary School during the grant-funded initiative. Then, I describe the structural and human resource changes that occurred in the school as a result of the SIG intervention. Following the description of the change, I present evidence from the qualitative data that a cultural shift occurred in the teaching and learning community at Riverton.

Table 3-4: Organization of Data Analysis

Research Questions	Data Sources	What do they tell me?	Analysis Criteria
1. What Structural and Human Resources changes occurred in Riverton?	Interviews Observation Documents	New norms New Roles New Needs, ways new needs are met	How did the structures change? What needs do they meet?

			What operational norms of the organization changed?
1 b. How did these changes shape a new culture of professional teaching and learning?	Interviews Observations Documents	New actions and activities New Resources Shared Strategies Revised beliefs	What effect did these changes have on the culture and environment of the school? What changed in school climate data? What actions and observable evidence is present for the change?
2. Did the investments in Riverton's turnaround effort lead to long-term improvement?	NECAP results NWEA results Grant Finances Observations Interviews	Trajectory of student achievement School Climate District and School Budget	Compare the rise in Riverton's scores to district, state, and Riverton of the past. Cost benefit/return on investment on budget data Improvement in qualitative measures – excitement, positive efficacy.

Economic analyses

I planned to employ two economic analyses to examine the grant expenditures: cost-effectiveness analysis and social return on investment. Because the Riverton SIG was a relatively large award compared with other initiatives in the state of Maine, it is important to understand in what ways this money was used and if it will have a

72

meaningful effect on teaching and learning in the long term. These analyses are appropriate as the SIG was a large investment into changing teaching and learning practice. These methods are rooted in basic arithmetic (Persaud, 2015), creating ratios that provide information about effect and results of funded initiatives.

  Cost-effectiveness. Cost-effectiveness analysis is useful when comparing two or more potential programs for selection (Levin, 1983). While the comparison in this case is the program that was in place before the turnaround initiative, this metric may be more useful in comparisons with alternative programs in my future research. In my original plan, I intended to calculate a comparison of the existing professional development system (PLBSS) with the job-embedded system supported by the SIG. To this end, I was going to calculate the amount spent on supporting professional learning and the effect of raising teacher efficacy. Detailed data was requested from the district, but not made available in time to add to the dissertation. I provide a cost-effectiveness ratio for the effect of raising student achievement levels in reading, as this is an important indicator for future educational attainment.

  Return on Investment and Social Return on Investment. Calculating SROI begins with a logic model or program logic, with the inclusion of expected or actual financial impact included as program outcome or impact. Instead of "profit", the gain or potential gain to society is designated an impact (see Social Ventures Consulting, N. D., p. 8). The current evaluation method of SROI is relatively new to the evaluation toolbox (p. 12), and this model is useful for providing information about the greater financial impact of a social program. It is not a stand-alone method for program evaluation, but can provide an additional level of information to motivate program officers, participants, and

funders when a program is shown to have good return for public good (Social Ventures Consulting, N. D.).

Checchi (2006) and Psacharopoulos (1995) include a calculation of SROI in their work in international economics of education. While both conclude that social returns on education tend to lag behind private return on investment in education, their formulas examine economies on a large scale under a variety of educational contexts. In the logic model based SROIs currently used in evaluation contexts, many factors are considered as possible impacts as a result of educational programs. As a result, the returns on specific programs present findings that can seem quite large when compared to nation-level SROI findings (Beesley, DiFuccia, and Gulemetova, 2015). The full logic model for the SROI portion of this dissertation, based on the evaluation method and not the national SROI calculation, will be presented in chapter four.

"We now possess a large body of evidence that, despite all unobservable differences, education still plays a causal role in earnings determinations, even if standard Mincerian regressions (whereby earnings are regressed onto education) do not account for more than one-third of the observed variance" (Checchi, 2006, p. 164). Checchi argues that the key difference that education makes in the economic life of a person is through investment in human capital - providing people with the skills needed to learn and perform successfully in their line of work. Building on the work of Psacharopoulos (1994), he examines both private return on investment and social return on investment at the national level for many economically advanced and developing countries.

Education is considered an inherent good in economics, as a predictor of employment, wage over a lifetime, and productivity (Card, 1999). In the United States, it

is difficult for someone with limited English proficiency to obtain access to the high school curriculum and beyond - an access point for entrance into gainful employment (APA Task Force, 2012). Benefits of English Language Literacy for a person of first generation immigrant status over a lifetime ripple into a community and a lifetime - these are extensive. These benefits include a better chance of graduation, continuation to higher education, and therefore better associated income chances. Additionally, those who can read proficiently in English experience reduced dependency on social services and reduced chance of incarceration. Finally, literacy provides a public benefit through increasing the chance of returning money to the tax base through income (Oreopolous & Salvanes, 2009; Lochner, Lance, & Moretti, 2004).

Many possible social benefits exist from the improved teaching and learning climate, which can figure into an SROI. For example, a school that has a high level of teacher efficacy with many support systems to support teacher efficacy may experience reduced overturn of teaching staff. I had planned to examine this at the onset of the research, but these data was not made available. Possible reduced cost from reducing overturn include not have to search for teachers and train/retrain them to utilize the programs.

Because many specific data sources that I had planned on using were not available at the time of dissertation, I rely on a figure from Amos (2008) cited in McLendon et al (2011) to estimate a social return on investment from this grant. They state that a high school dropout costs society $260,000 in lost revenue and use of the social service network over the course of their lifetime. While the payback period for this

SROI is longer than that typically sought by policymakers, it provides an important illustration of how the long term effect of educational attainment in broader society.

Trustworthiness

Instead of addressing the idea of validity of this study, common with projects that involve quantitative analysis, I address the concept of trustworthiness, as established by Lincoln and Guba (1985). Because the foundational method of my study is ethnography, and no advanced statistical analyses are used in this dissertation, the concept of trustworthiness seems appropriate for analyzing the larger credibility of this work. Trustworthiness has four areas for evaluating the worth of research: credibility, transferability, dependability, and confirmability.

In terms of credibility, I had a relationship with this district and school that spanned 2011 to the present. As I was engaged with the school at various points during that time, I had opportunity to gain a broad perspective on the Riverton story and context. During this time, I observed many people, developed good working relationships with many of the key players in the turnaround, and engaged in member checking at various points in the research. In terms of transferability, I strive to provide thick description about the turnaround initiative in chapter four, and I provide coding samples for transparency about my work (dependability). I believe that the story presented in chapter four meets the test of confirmability - the data are presented in narrative, in a way that is tells a story and remains faithful to the context of the individual data points. I believe that another outside observer consulting the same data would come to similar conclusions about Riverton's turnaround.

In my economic analyses, I provide tables with the data used as well as identify the source. I believe it is likely that other researchers, trying to answer the research questions with the data available, would likely draw the same conclusions as me from these data. I provide transparency in my data analyses by using a simple narrative form so that many readers may read the logic behind my calculations. I extend the simple narrative form to the formulas used for calculating the cost-effectiveness ratio and SROI so that readers who may feel less comfortable with statistical notation can understand how I reached my conclusions.

In terms of triangulation, I feel confident that my story accurately reflects much of what was said about Riverton in the time following the turnaround, in newspaper accounts, by school officials, by evaluators looking at the SIG grant in Riverton, and in district climate surveys. While I did not directly use the evaluation report (I reviewed this report during one of my visits to the site), the general tone was positive. The climate surveys from the beginning of the project and the end also paint a picture of improvement in the school climate. While I did not use these surveys as a data source in this project, they indicate that the teaching and learning community in Riverton has made a remarkable change.

Limitations

The Riverton Elementary turnaround story is a single case and illustrates that dramatic change can occur when a focused initiative is implemented with enthusiasm and fidelity. Much of what occurred at Riverton depends on local context: Riverton is situated in a school district with a well-recognized history of union and district leadership

collaboration and a unique salary schedule created to incentivize and reward professional learning. As such, teachers in Portland may be predisposed to believing that professional learning can help them learn skills and techniques to improve student learning. In addition, the student population at Riverton, although similar to other cities with large immigrant and refugee populations, is unique to Riverton. The relationships developed over the course of this initiative between students and teachers are specific to the individuals who experienced them. It is possible that another school in a different context may not be able to implement the exact same initiative and expect similar results.

Additionally, I must place limitations around my use of economic analyses. While I have been asking economics questions since my first day of doctoral studies, UMass College of Education does not house a faculty member with expertise in this area - as a result, I am largely self-taught in these methods. This, coupled with lack of access to planned data, means that my estimates on SROI are dependent on calculations about cost and return to society of high school graduation. A calculation with more finesse may be possible in my future studies.

In this study, I am not assigning statistical significance to anything -- I cannot say with certainty that Riverton's achievement score rise is better than that expected of turnaround schools nationwide. This may be of interest to educators and policymakers, but is beyond the scope of what I am hoping to accomplish with this dissertation. Instead, I present the data as they are, leaving open the option of differences in interpretation of these results.

Finally, whether or not Riverton truly made a "turnaround" depends on which definition of turnaround the reader chooses to accept. If one accepts the metric that states

that a turnaround has only occurred when a school becomes better than half of the other schools in the state, Riverton will not meet that standard. However, if one subscribes to the ideas spelled out in chapter two, that achievement data, teaching culture, and community perceptions, tell a more complete story regarding the health of a school, Riverton likely meets the mark.

CHAPTER IV
WORKING TOGETHER FOR SUSTAINABLE CHANGE

This chapter seeks to address the research questions presented in the first chapter about whether Riverton made a meaningful, substantive change and if so, what happened to make that change. As evidenced through multiple sources, including NECAP testing and other information obtained from the Maine Department of Education Data Warehouse (2016), observation in the school setting, and in-depth interviews with teachers and school, district, and union leadership, Riverton made a substantial change in their academic trajectory and learning climate. These sources speak to the dramatic improvement in academic performance in the school, as well as the change in the teaching and learning culture of the school. Because the interviews discuss the lived experience of the teachers and leaders who engaged in this school change, they inform an understanding of the culture at Riverton School before, during, and after the change. The observational field notes speak to the climate of the school nearing the conclusion of this initiative.

A report published in Bangor Daily News (McCrea, 2015) demonstrates consistent improvement in NECAP test results in both reading and math since the beginning of the SIG intervention. While Riverton's achievement profile is closing the gaps that existed between Riverton and the rest of Maine Elementary schools, it has not entirely closed, 48% more students are reaching proficiency in reading than in the year before the grant began. The research questions guiding the majority of this chapter are:

- What structural and human resource changes occurred in Riverton Elementary School during the SIG funding time-period?

- How did these changes shape a new culture of professional teaching and learning?

First, I present the evidence supporting that Riverton is a school that has, indeed, turned around their academic performance. Then, I examine the evidence of structural and human resource changes that occurred in Riverton to support this change. I discuss the change in the professional learning and teaching culture at Riverton Elementary School that resulted from these structural and human resource changes, and how it lead to a turnaround that has lasted for at least a year following the expiration of the funding period. Following a thorough response to the first research question, I address the second research question: Did the investments in Riverton's turnaround effort lead to long-term improvement? In response to this question, I review several areas in which money may have been invested, provide a cost-effectiveness ratio describing the effect of the initiative, and close with an estimate of social return on investment resulting from this initiative.

Riverton's Achievement Turnaround

In 2009-10, Riverton Elementary was one of the first schools in Maine to become eligible for SIG funding due to chronic low achievement and student growth. It was one of two elementary schools in the state to have a funded SIG application, and it was awarded the highest amount of grant monies in the state at $3,386,154 (Maine DOE, 2015). The intervention began in the summer of 2010 and the grant period expired at the end of the 2012-2013 academic year (interviews).

Originally, I had planned to include an additional year of NECAP data to see if the trajectory of improvement had continued or started to become level, but Maine

Department of Education adopted the Smarter Balanced Assessment system in the 2014-15 school year. The two tests are not comparable - Smarter Balanced is based on a different set of standards and goals than the NECAP - so the second year of Post-SIG cannot be assessed via the NECAP. However, the following charts examine the changes in Riverton's academic performance in reading and math during and after the grant-funding period (data drawn from Maine DOE, as found in McCrea, 2015). I include comparisons with the average performance of elementary students in the state of Maine. Figure 4-1 demonstrates that between 2010 and 2013 (the turnaround funding period), the number of students reaching proficient or above in grades 3-5 increased by 57%. In the year following the grant funding, 60% of Riverton students in grades 3-5 were achieving proficiency in reading - an increase of 70% over the beginning of the turnaround effort.

Figure 4-1: Riverton Reading NECAP results by percentage of students in achievement categories (Source: Maine DOE Data Warehouse, 2016)

Figure 4-2 illustrates the mathematics achievement test results for Riverton. While math achievement was not the focus of the turnaround initiative, similarly impressive gains were made on the math NECAP. At the beginning of the funding period, fewer than 30% of Riverton students in grades 3-5 were achieving proficiency in math. By the end of the turnaround period, around 46% of students were reaching proficiency on this test. In 2014, which was the beginning of a new math strategy at Riverton School (March, 2013), 50% of Riverton students were achieving a proficient or above level in math. The number who were significantly below proficient also decreased steadily through the literacy turnaround initiative. While one generally thinks of literacy and mathematics as discrete content areas and skills in elementary teaching, one must be able to read and write in order to access the math curriculum.
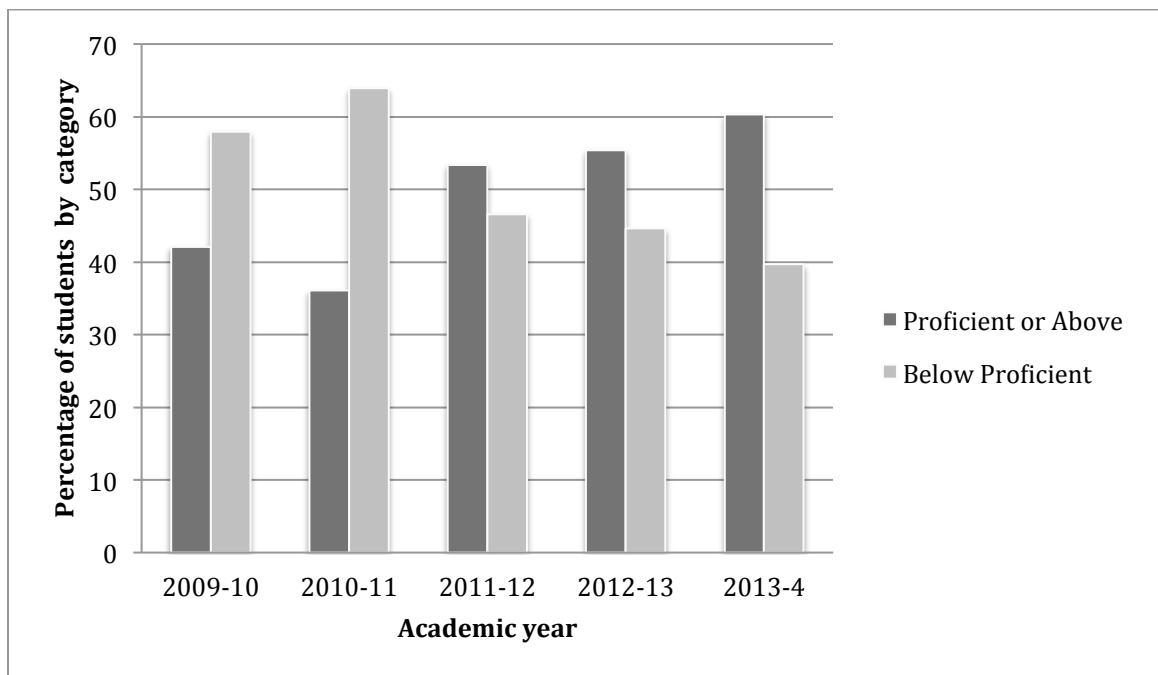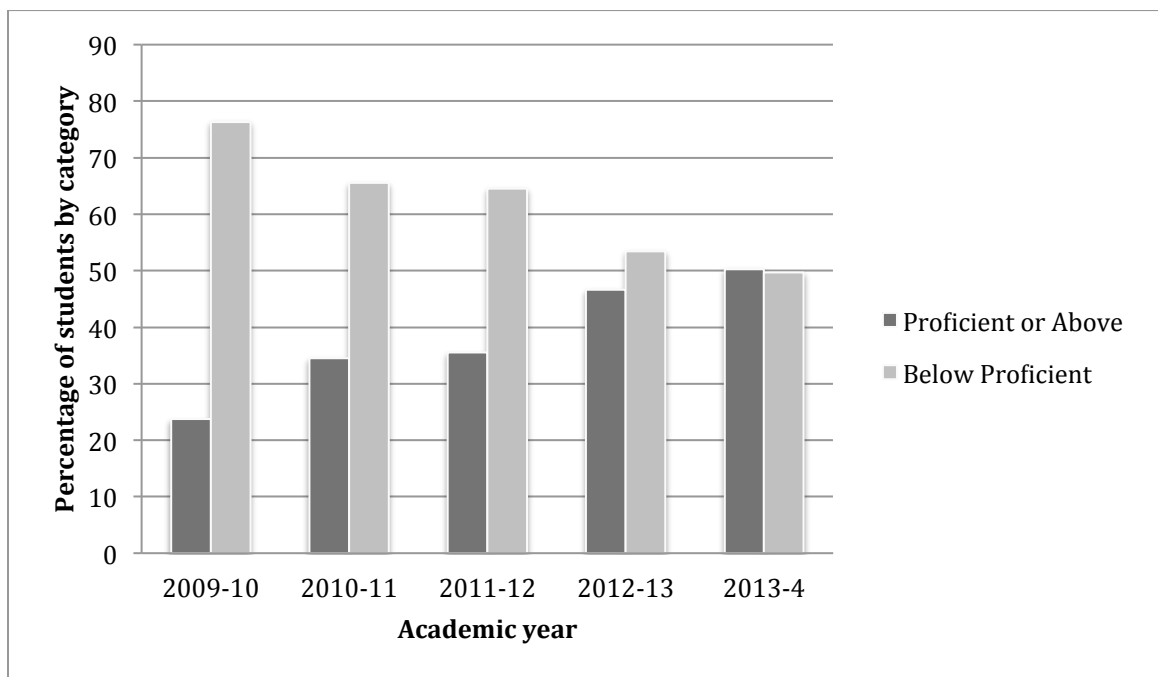

Figure 4-2: Riverton Math NECAP results by percentage of students in achievement categories (Source: Maine DOE Data Warehouse, 2016)

In the second chapter, in my proposed guiding questions for evaluating the effectiveness of turnaround efforts, I identify gap-closure as an important element for establishing whether or not a school has truly changed their academic trajectory. Figures 4-3 and 4-4 speak to this trend in reading. While statewide achievement on the NECAP remained steady with approximately 70% of students scoring as proficient or above on the reading test, Riverton's achievement levels show steady progress from 2010-2014 against the state averages. In the year following the turnaround, 60% of Riverton students scored in the proficient or above category, compared with around 68% of students statewide reaching this category. At the same time, the number of students scoring as below proficient fell dramatically from 2010 through 2014, as demonstrated by figure 4-4. While Riverton had not achieved complete parity with state averages in reading before the changes in the state requirements for testing, the trajectory was consistent with eventually gap closure between Riverton students and their peers in the remainder of the state.
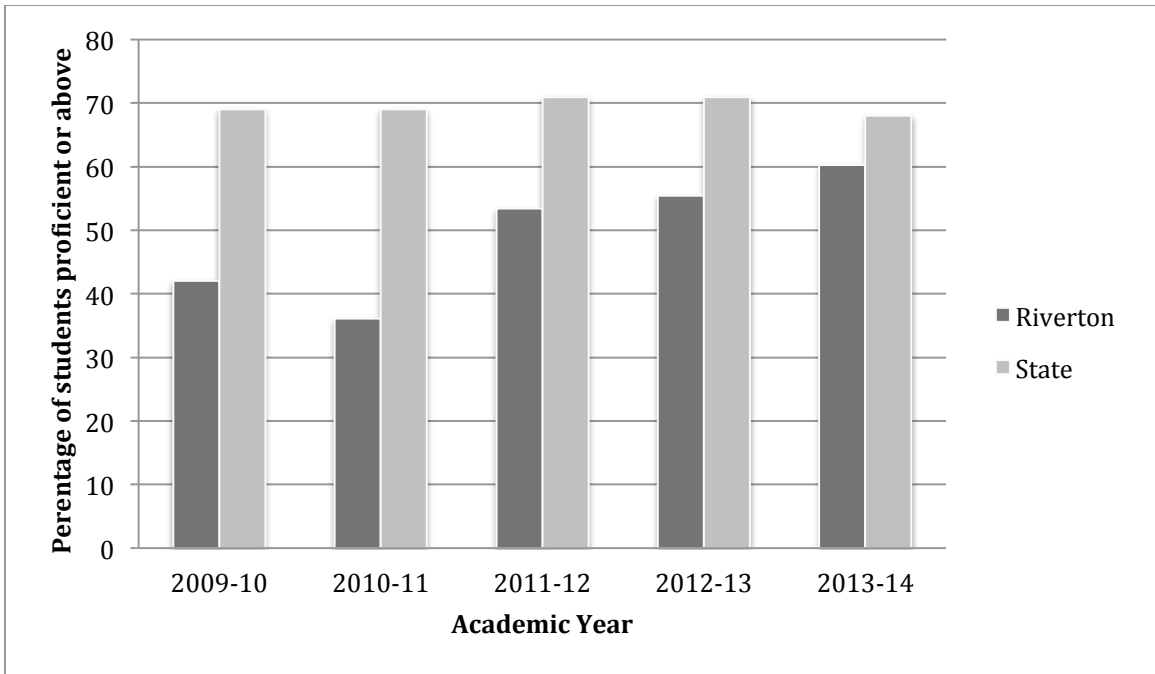
Figure 4-3: Riverton's Reading NECAP Results Compared to Maine State NECAP - Proficient or Above (Source: Maine DOE Data Warehouse, 2016)
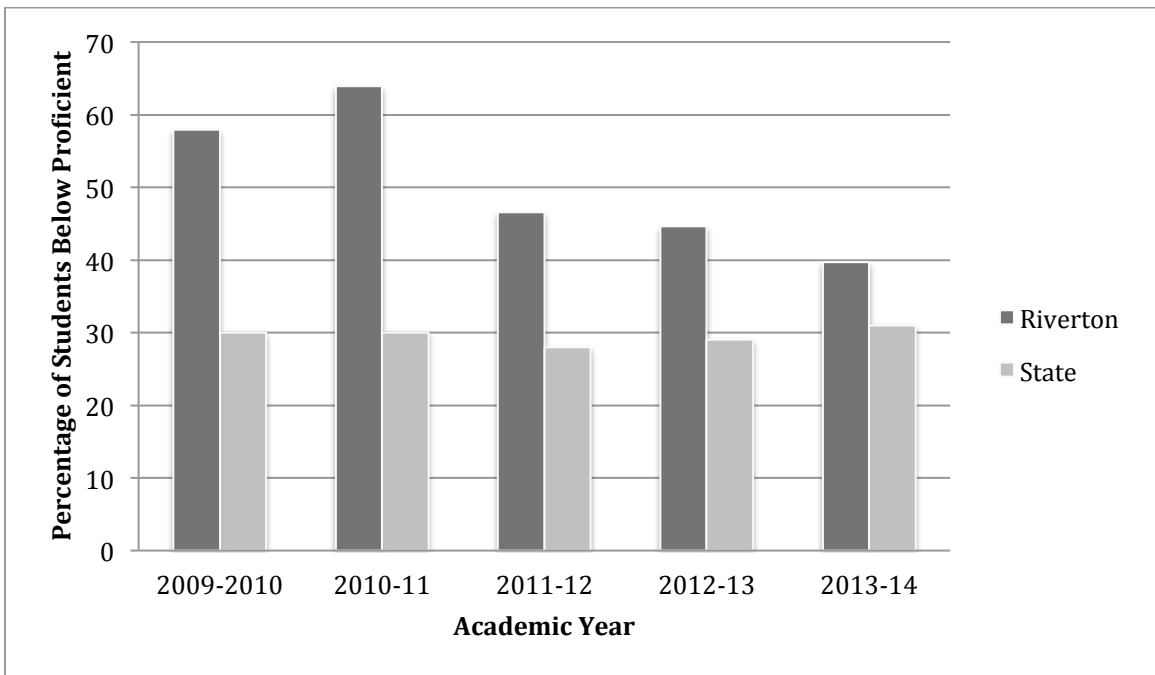
Figure 4-4: Riverton's Reading NECAP compared to State Maine State NECAP - Below Proficient (Source: Maine DOE Data Warehouse, 2016)

Again, while math was not the focus of the Riverton turnaround, similar movement in the mathematics scores is noted in figures 4-5 and 4-6. The gap-closure movement in this subject area was not quite as dramatic as that demonstrated on the reading test, but the movement demonstrates a trajectory towards gap-closure. In 2014, the year in which the new math curriculum was introduced at Riverton, 50% of Riverton students were reaching proficiency or above, compared to the state average of 60%. Considering that fewer than 30% of students were reaching this level in 2010, this movement represents an increase of a rate above 100% during the turnaround initiative.
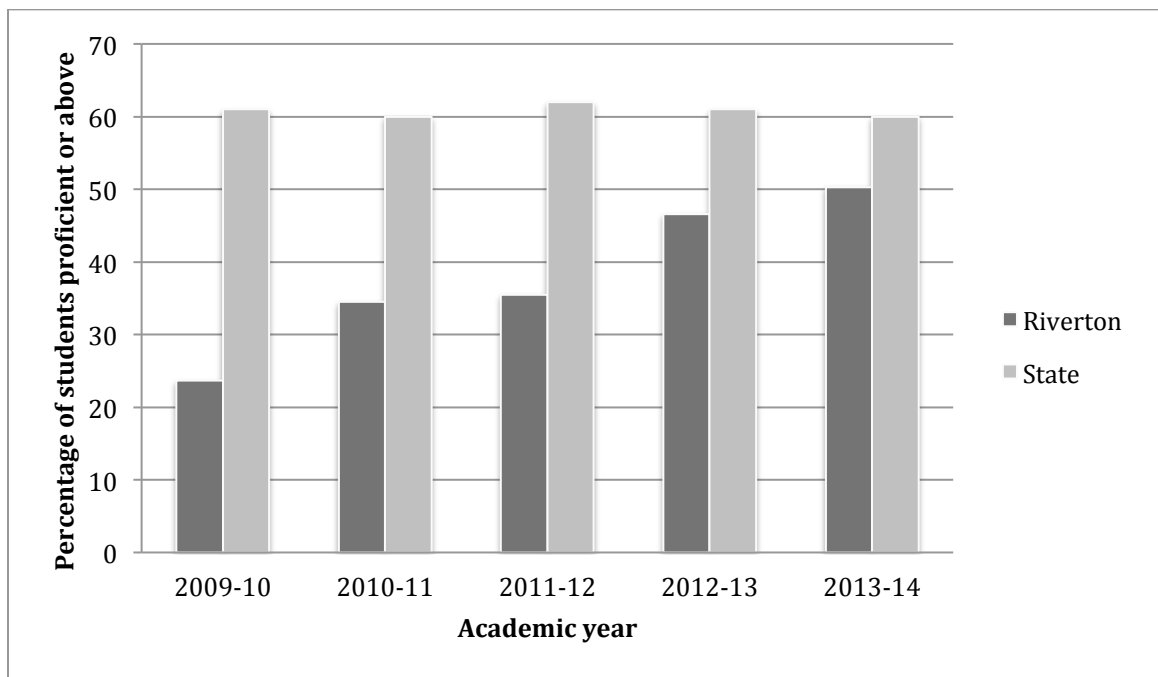
Figure 4-5: Riverton's Math NECAP Results Compared to Maine State NECAP - Proficient or Above (Source: Maine DOE Data Warehouse, 2016)

Figure 4-6 shows that fewer students were below proficient in 2014, and that the number of students scoring in this category had fallen dramatically over the grant-funded period.
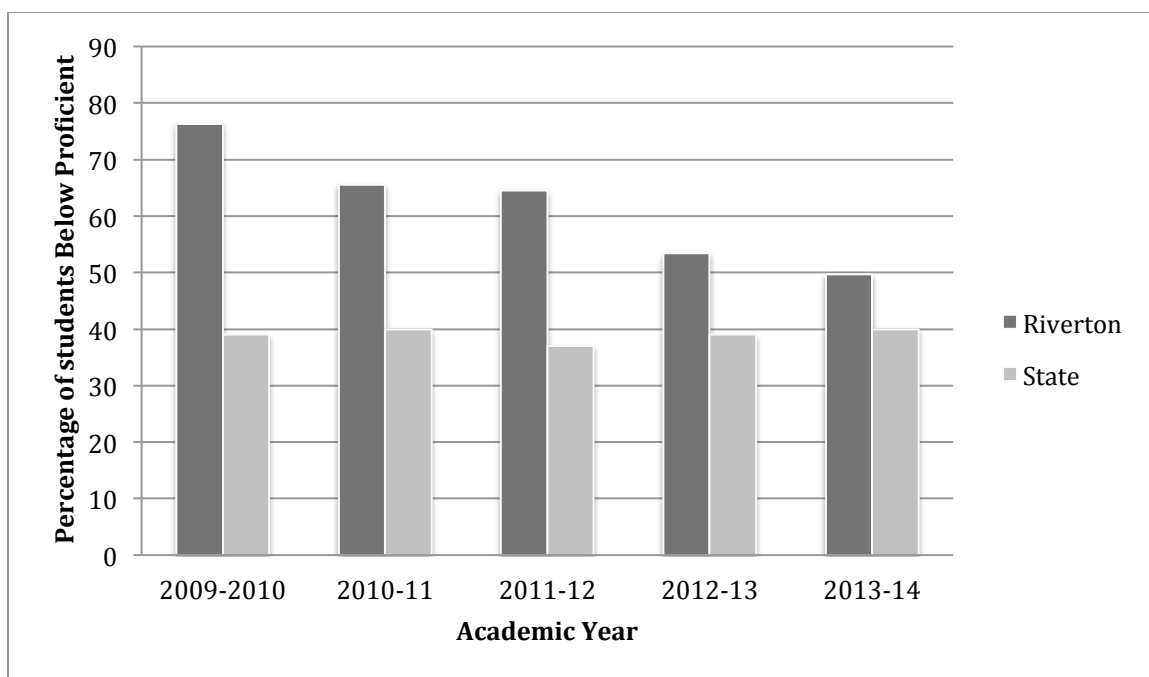
Figure 4-6: Riverton's Math NECAP compared to State Maine State NECAP - Below
Proficient (Source: Maine DOE Data Warehouse, 2016)

The high stakes testing data from 2009-2014 demonstrates momentous progress in

gap-closure at Riverton School. When the demographics of the Riverton school

population are considered compared to the demographics of the state of Maine (Maine is

95% non-Hispanic white and rural according to the Census Bureau in 2015; Riverton

students largely identify as students of color and recent immigrants to the US), these test

results are compelling evidence that a true turnaround occurred at Riverton School -- a

turnaround that continued to produce effective change at least one year past grant

expiration.

NWEA. The NWEA Measures of Academic Progress (MAP) assessments are

tests used by many school districts to assess student growth in a formative manner. The

tests adapt to the students' abilities while they are taking the test to enable the students to

feel more successful at their individual levels as it assesses performance within those

levels. Because it provides rapid feedback, ideally the NWEA assessments can help

teachers understand student performance in a timely manner and adjust teaching to meet

student needs. It may also provide a way to both predict and track student achievement

levels over time (NWEA website, 2015). Portland Public Schools used the NWEA

assessments in Riverton during the entire turnaround intervention and continues to use

them to inform teaching and learning in the school. Because this assessment offers a

consistent measurement, it may represent a more valid measure of progress in Riverton

schools over time.

In an earlier study by Rallis, Keller, Lawrence, and Soto (unpublished study),

Keller had demonstrated that NWEA growth scores at Riverton far outpaced the growth

scores at the other schools in our sample. While the district continues to use and track the

NWEA data at Riverton, this information was not made available to me at the time of this

dissertation. The plan was to examine whether or not continued the growth at Riverton

had continued at a reasonable pace since the conclusion of the grant funding. As part of

my framework for understanding whether or not a school turns around of includes growth

indicators, I believe this would have strengthened the argument that the turnaround

happened. At this point, I can only say with certainty that the growth data implied a

turnaround was in progress when we visited the school in 2013. As growth scores have

been discussed as a possible means for assessing whether or not a turnaround has

occurred, the NWEA scores at Riverton present an opportunity for additional research.

As reported by the Chief Academic Officer, David Galin, Riverton historically

struggled with both Reading and Math achievement (October, 2012). Because of

Riverton's large population of recent immigrants to the United States and history of

lower achievement in reading assessments, literacy and language acquisition was selected as the key focus of the intervention, as it was perceived as the gateway skill needed to learn other content areas in the U.S. education system by district and school leadership. The Lucy Calkins' Reading Workshop was selected as the curriculum upon which to develop their literacy and language acquisition intervention, as a neighboring school district, had been using it with success (as reported in various interviews with David Galin, Tracey Warren, and Kellie Smith, 2012-14). The charts above demonstrate that the achievement gaps between students at Riverton Elementary and the Maine statewide performance on these tests began closing during the funding period and continued to close following it - that Riverton truly turned around. In the next section, I will discuss the changes that occurred through the turnaround model that made this transformation possible.

Structural and Human Resource Changes in Riverton's Turnaround

The Riverton Elementary School Turnaround actually began as a "Transformation" Model intervention instead of a turnaround (SIG application, 2010), but was changed to the turnaround model when David Galin was hired as Chief Academic Officer in Portland. Regarding this time, Galin said, "I came in and met with them before I was hired officially, and helped them tweak their SIG plan to include the literacy work, because they had forgotten to include anything instructional in their plan." Halfway through the first year, due to pushback on instructional change, Galin pointed out that the transformation model would not be possible because of the resistance within the school. "I said 'we're not going to do this anymore. We can't transform this school. We're going

to turn it around'" (March, 2013). When they adopted the turnaround model, several structural and human resources changes occurred. Many of these changes are those prescribed in the turnaround model of school improvement grants. Activities included as part of the model are:

- Changing school leadership by replacing the principal,

- Replacing fifty percent of the existing staff,

- Selecting an instructional focus or model reflective of student needs as informed by data,

- Providing job-embedded professional development,

- Using data to continuously inform instruction,

- Increasing learning time for both staff and students,

- Incentivizing staff to work and train at the school, and

- Reaching out to provide community services and support (Kutash, Nico, Gorin, Rahmutullah, & Tallant, 2010).

In the follow sections, I describe the activities and actions that Riverton engaged in that supported the turnaround model, in the order in which they occurred rather than in order of the list above. Instead of citing every document and interview that provided the information, I cite only direct quotations in order to preserve the narrative of the Riverton story. Some of the changes made at Riverton were not necessarily those dictated in the model, but were helpful in facilitating action spelled out in the model. In addition, some of the supports provided to teachers and staff during the turnaround were possible because of pre-existing structures in PPS that facilitated engagement in a professional learning based intervention.

Instructional Focus. The Riverton turnaround began through selecting an instructional focus rooted in student data and providing both external and job-embedded professional development. In describing how the focus on literacy was selected for Riverton, Jeanne Malia said that the focus was, "Not so much with math, because we haven't devoted the extensive PD to math as we've had to literacy, and this is a school of over 50% English learners. Many of these students come from refugee camps. Their parents don't have English skills and don't read in their own native language" (March, 2013). First, a significant number of teachers traveled to Teachers College at Columbia University for an extended professional development session on the Lucy Calkins' Reading Workshop by the creators of the program. While not every staff member participated, the teachers who attended shared positive memories about the week. They reported learning about the model and touring schools in New York City that were using it. During the first year of the grant, a staff developer associated with Teacher's College came to Portland to continue the job-embedded portion of the professional learning. In response to staff perceptions about this developer, the district hired a local professional learning facilitator, Kellie Smith, from Cumberland, ME. Smith continued as their facilitator throughout the grant period and beyond. Eventually, the Writer's Workshop model was also adopted as part of the intervention strategy.

Job-Embedded Professional Learning. Several changes were made in the way the school normally operates to allow for the job-embedded professional development element to happen. First, Kellie Smith came into the school to lead workshops that took place during the instructional day. Teachers worked with each other in grade level teams during this workshops - all first grade teachers would meet with her for an hour during

the day, then all second grade teachers, etc. To provide time in which three grade level teachers could meet to for collaborative learning, three floating substitute teachers were hired. These substitutes were full-time employees of the school, assigned exclusively to Riverton during the grant period. These substitutes were trained in the model and became quite familiar with the students at Riverton, as they would visit multiple classrooms during the day in order to allow teachers collaborative professional learning time.

The professional learning around reading was further supported by a full time literacy coach, Tracy Warren. Warren had been a literacy coach with Riverton before the start of the intervention, and she was part of the discussions with district leadership that led to the selection of the Lucy Calkins' Workshops. Warren utilized many coaching strategies to facilitate professional learning. She constantly visited classrooms to observe, model, troubleshoot, gather ideas to communicate with others, and occasionally provide additional teaching support. She also ran workshop model coaching sessions, where teachers would practice techniques in front of each other and offer feedback. During the school day, Warren visited many classrooms across multiple grade levels, finding and providing tools and ideas appropriate for the teaching of literacy at each grade level.

The professional learning provided at Riverton School was extensive, substantive, and meaningful. Initially, Kellie Smith provided instruction and demonstration on the Reading Workshop model to the grade level teachers in their professional learning meetings. They instituted "lab sites" in the school, where Smith and then teachers would run a 40-45 minutes workshop in their classroom with observers, and they would debrief together. Smith would often being in the schools two to three days at a time for these lab

sites, several times during the year. Warren would then continue her coaching based on what Smith had presented during the professional learning.

Grade level teams would bring in student work and data for planning and developing teaching strategies with Smith and to collaboratively design the next day's lesson during the lab work. Smith and Warren would then coach the teachers as they implemented the lesson in their classroom. Time was then provided for reflection between the teachers, coach (Warren), and facilitator (Smith). Occasionally, they would bring a small group of students for the teachers to work with outside of the classroom setting. In addition to embedded professional development, Smith delivered weeklong workshops during the summer to allow Riverton teachers opportunity to both maintain their skills and build their capacity with the workshop model while they were away from students over the summer stretch.

New Leadership. The change in school leadership did not occur until the second year of the grant. When they decided to seek a new principal, PPS made a concerted effort to find the best principal to support the change they wanted to make at Riverton. In 2011, Jeanne Malia was hired for the position, returning to Maine after a career in the Los Angeles Unified School district as a literacy coach, literacy coach coordinator, and principal. With a master's degree in literacy, a bachelor's in special education, and years of experience as a teacher and coach in an urban district with a large population of immigrant and ELL students, she was uniquely qualified to guide this turnaround effort in Portland. As a native of Maine, Malia expressed her interest in returning to the area and making a difference in Portland schools.

Malia demonstrated both the content knowledge needed to be a leader of instructional change in the Portland Schools and the aptitude for change leadership - both elements are critical in the literature on principal leadership for school turnaround. When I visited the schools, Malia's actions were consistent with a leader who understands the human resource needs of her staff, values and recognizes the capacities of teacher leaders and coaches within her school, and participates alongside her staff as a learner. As a simple example, Malia ensured food was provided at every event that went beyond the call of the regular teaching day - usually simple foods like fruit, yogurt, and bagels - including interviews, presentations, and extended professional learning time. Gestures like this help the teachers to know that their time and comfort is acknowledged and valued as important.

People noticed her hospitality within her leadership style – faculty, parents, and community members. She warmly greeted visiting parents when they entered the office to discuss (sometimes tense) matters (such as the day a young student "accidentally" stole a bicycle and brought it to school). As a visiting graduate student researcher, she frequently included me in lunch purchased for her staff, including Chinese food from one her student's family businesses. She welcomed researchers and students from multiple locations into the school – and in turn, her "open door" approach likely rippled into the school, where the norm became "teaching as a public practice" (interviews and observations, 2013-2014).

Malia attended many of the professional learning events alongside her teachers. While this intensive job-embedded professional learning was occurring, the school still had issues of attendance, behavior, and management that demanded the

principal's attention. I visited on one day when the teachers were engaging in grade-level planning for the next academic year with their literacy coach, Tracey Warren and Kellie Smith, their professional development facilitator. Malia was present for several of these meetings, but at one point was called away. When I followed up with her, she indicated that she left to work on the issue of a student having stolen a bicycle and ridden it to school. Malia found ways of attending to both the instructional leadership and management needs of the building.

Other Leaders. As identified earlier, two leaders of this change other than the principal were the Literacy Coach, Tracey Warren, and the Professional Development facilitator, Kellie Smith, first discussed in the job-embedded professional learning section. Each was effective as a leader of change in this school because of the qualities they brought to their positions. Both were knowledgeable about the Reading and Writing Workshops and were local to the area. People in the schools knew them and indicated they valued their expertise and style as facilitators for their professional learning (interviews).

Warren was a literacy coach in the district before the start of the intervention. As part of the intervention, her position at Riverton was expanded from part-time (she also served as a literacy coach in other schools in the district) to full-time at Riverton. She had been part of the leadership team that decided on the Calkins' approach. She was known and respected in the district before the intervention, which gave her a certain amount of credibility among local teachers. As her experience implementing the Reading and Writing Workshops increased, others in the district began to request her assistance in learning the methods and techniques associated with the curriculum.

I shadowed Warren over several days in the years I studied the school, observing her in action during the school day; her interactions with teachers, students, with leadership in the building; and discussed her work with her through formal and informal interviews. Warren's day started in her office, located down a small corridor from the principal's office and near the teachers' lounge. Her office was replete with bookshelves, filled with books about teaching literacy, as well as some books for students. Her bulletin boards were covered with ideas for "sentence frames" (short example sentences with missing words that exemplify common writing structures in English) and other concepts teaching specific structures of written English language. Her desk had examples of student work displayed, resources to provide teachers with ideas for specific challenges they might encounter when teaching reading and writing to students. One morning towards the end of the grant, I sat with her as she prepared for the day - she discussed the rooms we would be going to see on this day, as she flipped through her files, seeking resources to address a question that a teacher had posed to her regarding a student. Warren knew this student well and spoke about what she was thinking aloud as she looked through her materials. When we arrived at the teacher's room, they were in the middle of their reading block for the day - the young students were around the room in different areas, reading from their choice of books. Some waved enthusiastically as Warren entered the room. Warren and the teacher spoke about the materials for the student.

During the days I visited (March, 2013; June, 2014), we typically had four to five scheduled stops in classrooms, across multiple grade levels. The coaching technique used in these stops varied according to the needs that had been expressed by the teacher or

factors observed by Warren. We typically spent 20 minutes to a half-hour in the classrooms. In one room, Warren modeled a lesson with two teachers observing. In another, she sat with a group of students to help support work that a teacher had requested. In a third room, Warren observed what was occurring, and then with the teacher, brainstormed techniques that the teacher might try in order to address a concern.

At the point in the intervention that I observed, the staff displayed remarkable comfort with Warren. As we would travel between rooms, teachers would see her and pull her aside to have impromptu consultations or to schedule classroom visitations. In discussing these impromptu meetings, Warren confirmed that these types of interactions were common in her workday and one of the ways that teachers communicated their needs to her. During this time, she also served an active role on teams and committees within the school, including the Literacy Team and the Response to Intervention (RTI) team.

Warren worked closely with Kellie Smith throughout the SIG intervention. Riverton staff expressed displeasure with the previous facilitator used in the first year of the intervention, before Smith was hired. Together, Warren and Smith jointly planned the professional learning direction of the school. Professional learning time was more instructional and directive at the beginning of the initiative, providing the teachers with skills and techniques used in the reading and writing workshops. Towards the end of the initiative, the grade-level teams became more self-directed and the facilitated professional learning time with Smith and Warren developed into sessions for joint planning and brainstorming. In between, Smith and Warren had provided workshopping

opportunities, where teachers could practice techniques in front of each other for feedback.

Smith is considered a local reading expert, having served as a literacy coach in Maine public school districts for 18 years and as an owner of a literacy consulting firm, LOGOS Literacy (LinkedIn, 2015; interview, March, 2013). In discussing how she and Warren worked together, Smith said, "The coach - Tracey - I think you met with her this morning. It's her job to follow through with everything I do. She and I work very closely together. She tells me what the teachers need, and I come in and support by modeling teaching, then Tracy follows through. She makes sure that the same things are continuing to happen at each grade level. " By working closely together, they were able to ensure continuity with the Reading and Writing workshop techniques in the classroom over the course of the SIG intervention.

I observed Smith and Warren facilitating grade level meetings towards the end of the SIG initiative. During these meetings, teachers brought examples of student work for the year that represented students with high, medium, and low reading levels in their course. This helped guide the conversation about planning for the next school year, as teachers reviewed the scope and sequence of the reading curriculum. During these meetings, Smith remarked that the teachers had taken ownership of the work within the schools - that unlike in the beginning of the intervention, they came in with ideas and were now driving the creation of their "toolkits" (collections of ideas and strategies to use with the students).

According to Malia, Smith was a popular professional learning facilitator. After the expiration of the SIG funding period, the school was negotiating to get a week of

professional development on site before the start of the school year. Riverton staff voted overwhelmingly to contract Smith to visit for a week before the start of the school year to "refresh ideas and get them fired up". The staff wanted a continuance of the small group consulting and one-on-one conferring work that Smith and Warren had created during the SIG initiative.

Refreshed Teaching Force. As the model requires, fifty percent of the teaching force at Riverton was eventually replaced, and teachers who wanted to undertake the challenge of the turnaround effort were brought in. A common belief among the teachers was that those who left the turnaround effort wanted to leave - and the union and district worked together to find those who left positions elsewhere in the district. Those who remained in the school perceived this change as voluntary. According to interviews with union and district leadership, both PPS and PEA leadership assisted this effort by helping counsel teachers out of Riverton, who weren't interested in making the required changes. Teachers who left realized that they were not interested in changing their current practice to fit the Teachers College Workshop Model in their classrooms and found positions elsewhere in the district that would allow them to teach as they had in the past. The teachers who remained from the Riverton staff had demonstrated a commitment to staying and completing the professional learning strategy through the school; the new teachers who came in to replace those who had left came because they were specifically committed to the challenge of the turnaround (interviews, 2013).

Extended School Day. Riverton's school day was extended, as prescribed in the model. For Riverton students, the school day begins at 8:15 am - thirty-five minutes earlier than other schools in Portland. The end of the school day is 3:05 pm at Riverton,

while other schools are dismissed at 3:00 pm. This means that Riverton's day is forty minutes longer than other elementary schools in the area, meaning Riverton students have an approximately eleven percent longer school day than their local peers. This time allowed for both increased instructional time for student and additional time for teacher professional learning during the grant period.

Teacher Incentives. One of the strategies in school turnaround efforts is to incentivize teachers to remain in their teaching positions during what is commonly perceived as a challenging period and environment. Commonly, this incentive is a stipend or an increase in pay that reflects the extended teaching/learning day. Portland, however, has an unusual salary schedule in place that provided an alternative way of providing an incentive. Their Professional Learning Based Salary Schedule (PLBSS) is a knowledge and skills based salary schedule (see Conley & Odden, 1995; Firestone, 1994). Instead of compensating teachers for degree attainment and years of service, knowledge and skills based systems provide compensation based on participation in professional learning and building teaching capacity. PLBSS is structured to encourage continuous engagement in professional learning throughout a teaching career in Portland. Typically, a teacher participating in the system receives one hour of credit towards salary advancement for every hour of professional learning called salary contact hours (SCH) in the system. When a teacher accumulates 250 hours of SCH, the teacher qualifies for a salary lane advancement. Our evaluation of PLBSS sponsored by the National Education Association demonstrated that such a system encourages participation and engagement in professional learning and helps teachers feel recognized as valued professionals in their community (Rallis, Churchill, Lawrence, & Darling, 2011).

Almost any professional learning that can reasonably be expected to support the teacher's work in the classroom qualifies for SCH. A typical college course qualifies for 45 SCH - but college courses are not the main avenue for salary advancement in this system. Instead, the school district offers a robust menu of teacher and district development professional learning opportunities, intended to be immediately reflective of local classroom needs. In addition, teachers can propose individual study projects, to delve deeply into a topic that interests them. All SCH proposals are reviewed by a committee that consists of both teacher's union members and school officials (some are pre-approved before participants register). The teachers are then responsible for submitting paperwork to log their professional learning in the district database (Rallis, Keller, Lawrence, & Soto, unpublished study). Professional learning is highly valued by teachers in PPS - most teachers participate in the system, and many continue to participate in and contribute to the system even when they have reached their maximum salary level possible through SCH.

Typically, only work that happens outside of the context of the school day qualifies for SCH in the PPS/PEA contract. Initially, this left Riverton teachers in a predicament - IF they remained in Riverton School, they would be undertaking intensive professional development and a longer school day than their peers, but would have not qualified for SCH for this three year intervention. Many of the teachers at Riverton were early in their career, and the working conditions at Riverton made it challenging for them to participate in additional professional learning beyond the workday. Even if they were interested in programming elsewhere in the district or in returning to higher education for

a master's degree, the turnaround professional learning and their work duties made this challenging.

In recognition of these challenges, district and union leadership met with each other to negotiate a solution for the teachers at Riverton. As a result of their meetings, Riverton teachers were offered an entire lane-change of SCH credit - 250 hours - for remaining in their positions at Riverton School for the three years of the intervention. While this was not immediate reward in the way a stipend or additional salary might be, it provided a way of recognizing the hard work of the teachers participating in the turnaround. Beyond this, it provided an incentive to complete the three-year commitment to the project.

Epi-Model Changes. Some of the changes made to support the turnaround effort went above the call of the model - hence, I use the term epi-model to indicate elements of the turnaround effort that contributed to change in the teaching and learning climate at Riverton, but were not mandates of the model. Some of these changes were possible because of local resources available in Portland. Others changes helped facilitate some of the structural changes mandated by the model. These changes, specific to Riverton's turnaround approach, may explain why the model worked especially well in this context. Some of these changes may seem superficial, but addressed issues with the learning climate at Riverton. Others changes are support structures that made the professional learning approach to this intervention possible.

A Little Paint. The physical climate of the school was perceived as an issue by school and district leadership before the turnaround effort. Riverton is a large, one floor school built in the late 1960s/early 1970s, with dark brick and tile. The school has two

main hallways where the classrooms are in three room clusters. Between the hallways are large open spaces, used as a library and meeting area, among other purposes. One district official described the building before the turnaround as, "dark, down in a hole, and possibly cursed." When I entered the building, it seemed neither dark nor down in a hole - instead, my eye was drawn to the bright welcome sign, with words of welcome in the 22 languages and distinct dialects spoken by the parents and students of the Riverton Community.

Recognizing that students and teachers needed to feel good about their working and learning environment, leadership invested in paint and cleaning of the school. The walls were painted white, to brighten the interior of the school. Ample blank bulletin board wall space was created to display examples of student work. The open space in the center became more defined as a library and learning space.

Riverton School also created a community center as part of the initial "transformation" effort, where parents and other community members could turn for recreation, education, and other resources. The center was part of the proposal written by the leadership prior to Malia's hire, but remained as a part of the turnaround. The community center provides resources such as emergency clothing and food, ESL classes for adults, as well as other parenting and social service resource access assistance. This community center was part of the concept of the original transformation plan, but received continued support through the turnaround plan.

Books! A much-needed resource at the start of the intervention was reading material. The Reader's Workshop approach involves students having ample choice within their reading level - freedom to select books that interest them within their tested level, to

help them grow and advance to the next level. Riverton's library and reading resources were in need of renewal at the start of the intervention. In the reading room, leveled reading bins full of multiple copies of multiple titles lined the walls. In addition, materials that would support teacher professional learning were purchased for the reading room. It would have been nearly impossible to implement the Reading Workshop without these resources.

Floating Substitutes. One major epi-model intervention was the hiring of three permanent floating substitute teachers (subs). Three qualified teachers were hired specifically to provide consistent classroom coverage with teachers who understood the methods and approaches for instruction used within the school. Without these teachers, it would have been more challenging to schedule adequate time for the level of intensity needed for the professional development component of the intervention. With three floating subs, any grade level (each level had three classroom teachers) could come together during the school day at any given time, without being limited by preparation periods or specialist teacher coverage. This allowed for schedule flexibility for professional learning in terms of day, time, and length of time in ways not typically available to schools.

The permanence of the sub positions ensured that students were familiar and comfortable with the long-term substitute teachers. This meant that teaching could continue to be effective when the assigned classroom teacher was away for professional learning. In addition, the subs knew the students in the school and were able to meet the needs of the students in ways that a temporary or one-day substitute teacher usually cannot. The subs also had the opportunity to learn the Reading and Writing workshop

approaches, which ensured continuity of content delivery during teacher professional learning time.

The Literacy Committee. The Literacy Committee, which was created by David Galin, Tracey Warren, and other leadership, was part of the design of this turnaround that goes beyond the model. The committee was formed with a representative from each grade level. The literacy committee has multiple roles with the goal of supporting continued improvement of student achievement in literacy. They are charged with examining data and the current interventions in place. They help guide professional development in the school, including where lab sites are held and preparing the work to be done in those lab sites. "They're working on looking at what would be the next step for this school in terms of increasing teacher capacity in Readers Writers Workshop," said the principal, when describing their role.

"We created the literacy committee with a teacher of each grade level so that teacher voice was heard and incorporated to the major literacy decisions at the school, not just merely dictated by administration," said one teacher, continuing "The members of the committee are then able to communicate the decisions made back to the [grade level] team and communicate their team's concerns back to the committee. Teacher voice isn't lost in a void." In a literacy committee meeting I observed, the teachers planned the upcoming summer professional development sessions, including a small menu of choices focused on teacher needs and what days the events would occur. The meeting was guided by survey and observational data provided by the coach and principal, and provided an opportunity for teachers to consider options and stay involved in actively planning the course of the school. The literacy committee was an important addition to the turnaround

model at this school, because it was an outward recognition of local teacher knowledge and professionalism, providing voice to those doing the work during the turnaround effort.

The Professional Learning Based Salary System (PLBSS). While PLBSS was discussed as the basis of incentive under the turnaround model above, PLBSS provides more than a simple financial incentive to teachers. PLBSS is emblematic of a school district and union that believes that positive classroom change can be made through teacher engagement in professional learning. Portland has a history of honoring and rewarding professional learning for their teaching community - an overt belief that professional learning by the teachers supports student learning (Rallis, Churchill, Lawrence, & Darling, 2011). The value placed on professional learning is part of the foundation of this intervention.

While PLBSS provides a structure for salary advancement in the schools, teachers report that they hold great value in professional learning. When asked if she would participate in professional learning without the schedule, one teacher responded, "Believe me, we have enough work to do, we have enough learning to do, but because of this salary scale it's so motivating. I was like, I need to make the change personally for my family, but I'm also professionally motivated to learn the ELL and get that certification. It's both" (March, 2013). Other teachers discussed how the system helped both motivate and reward them for seeking knowledge to help improve their classroom skill.

Teachers in Portland continue to participate in professional learning beyond the maximum number of lane changes allowed by the system. Multiple teachers reported

"being at lane five" (interviews, 2011-2014), but seeking out additional professional learning in reaction to a perceived need in their classroom. One Riverton teacher, already busy with the embedded professional learning in the school reported joining an ELL certification course in addition to her work, because she wanted to better meet the needs of her students in the classroom. While this is one example, this case represents multiple teachers I spoke with about their participation in PLBSS beyond the maximum lane change. "I don't take SCH because I need the salary advancement - I take them because I want the skills to reach my students," (March, 2013) said another.

A system like PLBSS, which emphasizes knowledge and skill accumulation over longevity and formalized learning, does much to emphasize a value on professional learning within a school culture. While salary incentives may be part of the initial reason teachers participate in the system, the result of participation in the system is valuing professional learning as a tool for instructional improvement. And, this inherent belief in the potential for teacher professional learning to improve instructional delivery and therefore student achievement beyond that typically found in challenged urban school districts may have contributed to the success of this professional learning based turnaround model.

Because of the district's robust professional learning offerings, Riverton staff members had the opportunity to participate in additional outside learning AND to contribute to the professional learning opportunities of others outside of their school. As the efficacy of the turnaround became obvious, other schools in the district began to ask for the expertise of the Riverton coach (Warren) and others who were very familiar with the Reading and Writing Workshop techniques. This kind of professional recognition

may have gone a long way in supporting the turnaround effort, as teachers saw their hard work affirmed as beneficial through their colleagues seeking them out for professional learning and support. For example, when I visited Lyseth school, many teachers indicated that they were interested in undertaking a coach-supported intensive learning project like that which occurred at Riverton.

At the beginning of the turnaround, Riverton teachers did not qualify for credit in the SCH system. However, noting that teachers felt poorly regarding the school and their role in the turnaround during the first year, "there were some concessions made that may have not been within the regular salary contract, just to get this school going. This school's very demoralized, very frustrated, very sad, very upset and, in order to get everybody's head in the game, there were some concessions made" (March, 2013). The district and teachers' union worked together to create a way of incentivizing and acknowledging the hard work of the Riverton through their PLBSS system. While normally job-embedded work would not count toward salary advancement in PPS, the intensity of the turnaround effort was deemed a special case, for which teachers who remained through the turnaround received the equivalent of a lane change worth of credit.

Because of the structural and human resource changes described above, a new culture of professional teaching and learning led to a successful turnaround that has maintained for two years (and perhaps beyond). In the past, Riverton's culture was described in negative terms. Some leadership perceived the teaching staff as wanting to remain isolated in their classrooms, away from observation, and maintaining an attitude similar to "I know how to teach but the kids can't learn". One district administrator described the first year of the SIG intervention as "hell", continuing, "nobody was an

adult. Nobody would speak truth to each other, and everybody was looking to deflect blame" (March, 2013). This description, along with Riverton achievement being identified as a persistently low-achieving school by the Maine DOE, demonstrates that the baseline culture was low-efficacy. Some teachers at the baseline did not believe the needed change could occur (and perhaps did not want it); some teachers believed that change could occur, but didn't have the tools or support that they needed; and, all were working in isolation. The rules, norms, and customs of the school were built around a history of failure, but the intervention funded by the SIG changed all of this. The proper support structures and tools made it possible for the low-efficacy culture to develop into a high-efficacy culture: one where teachers believe in themselves, where they are provided the structures and supports they need, and they believe in their students. And, these beliefs are reinforced through improving achievement results. The model below, rooted in the theoretical framework presented in chapter one, is applicable to the Riverton Elementary School cultural turnaround.
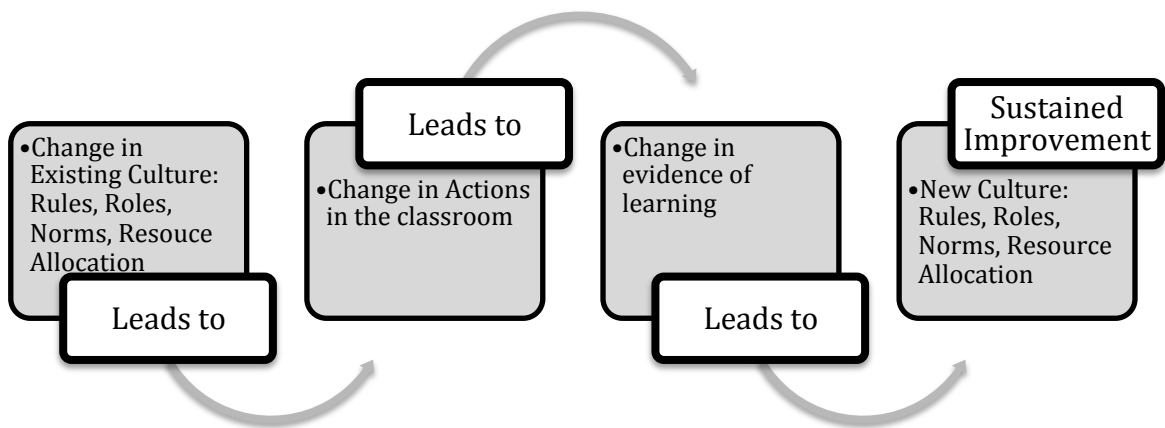
Figure 4-7: The Turnaround Model in Action

The following table identifies relevant example data that illustrate how Riverton School's culture changed in accordance with this model. These examples are relevant quotations from interviews and items from observational field notes to demonstrate how I have reached the conclusion that the Riverton culture has changed from a low efficacy culture to one of higher efficacy over the course of the intervention.

Table 4-1: Coding Chart

	Low Efficacy Culture	**Changing Efficacy Culture**	**High Efficacy Culture**
Systems	**Limited Co-planning/PD Time** Time for co-planning limited to specialist	**Very Supported Co-planning and PD time built into day:** "We couldn't have done it without those floating teachers"	**Co-planning and PD continues:** Principal found a way to use some of the substitute budget for school

	teacher supported times - difficult to use consistently.	"To do the job-embedded work, it's essential to have floating teachers, to be able to cover a team so that they can either meet with a coach or meet together or whatever, and the first two years of the grant, we had full-time floating teachers, right?"	to continue co-planning/PD days. "Professional learning has raised the level of teaching that happens here."
	No consistent curriculum "Consider writing a paragraph - some teachers might use a sandwich metaphor, others use something else." "Kids didn't necessarily know what they'd be getting from one year to the next - strategies were different, teacher to teacher."	**Consistent Curriculum** "We're using the same charts now, the same sentence frames - when kids move up [grade levels]they are continuing what they already know". "Everyone's using the same language, same strategies because of the curriculum and training". "We're all using the same units of study [at a grade level]." "Everyone does the same model now, from Kindergarten to fifth grade." "It's a first for me - the first consistent program I've seen while a teacher".	**Continued Consistent Curriculum** "Building on what we've done with Reading and Writing, we're going to be implementing a consistent math curriculum this year." "The District CAO is interested in seeing our Writing Workshop model used in the district."
Human Resources	**Coach Support** Part-time literacy coaching. Unclear from data - Coach identified TC model as	**Coach Support** Full-time literacy coaching. "The TC Staff Developer helps so much, and we have support to keep practicing it in the classroom."	**Coach Support** Part-time literacy coaching. "[The coach] is leading similar work in other buildings."

111

	potential intervention. **PLBSS Support** Credit only for after school professional learning. "We needed to work around the individual nature of the system to change a whole school."	**PLBSS Support** A lane-change of credit provided for the embedded learning. "The Salary Scale, it's so motivating. I'm professionally motivated to learn." "At Riverton, nobody is worried about getting a little bit of SCH here and there - they know we have them covered."	**PLBSS Support** Return to after school professional learning credit only. "I can get my ELL certification going forward, and the district supports me in helping me meet the needs of my students in this way." "Because we have behavioral model, the language of reward for work, and being able to define special learning as reward, can get people to do work."
	Leadership Support "I [the coach] had ordered Lucy Calkins for the school. David Galin helped talk our principal into doing it"	**Leadership Support** "They [the teachers] are giving 150%. I'm like cheerleader - you can look back at all the progress we've made, and what it took to get there, and know we can do it!"	**Leadership Support** "The principal makes a huge difference in the ability of a school to do this - and they have a good one!"
Actions	**Closed Door** "Nobody was an adult, and nobody would speak truth to each other."	**Opening Door** "They can observe each other, help each other, teach in front of one another. Now they're so used to teaching in front of	**Open Door** "The students are so used to seeing adults coming and going - it's an open door climate at this

		each other."	school."
			"People just come in and watch and learn from each other now."
	Isolated Planning Unclear from data	**Co-Planning** "We sit as a group and strategize about what would be best for this student or this class".	**Co-Planning** Teachers were co-planning and working on reading writing strategies when I visited.
	Individual Teaching Strategies "They weren't doing this [sharing strategies] before".	**Shared Teaching Strategies** "Now we teach them strategies. Now we see teachers giving students the strategies they need." "We share anchor charts."	**Shared Teaching Strategies** Consistent with practices established during grant at last observation.
Results	**Low Test Scores - Persistently Low Achieving School** "You could have run any 400 students through this school, and it would have been the same results."	**Test Scores Steeply Rising** "Now I see - Look how our kids are doing!" "Our volume of reading has increased at least four times what it was". "Their [the students] comprehension is so much deeper than it used to be." "We see really strong movement on the NECAPs".	**Test Scores Continue Rising, more gradual** "We've reached the kids who are easiest to reach - now we need to focus on those we haven't reached yet." "The kids are now writing 5 paragraph stories, with the main ideas and evidence to support it." "The teachers and students really see

| | | | the benefit of reading and writing in this way."

"The kids love coming to school more now. They love having choice in their reading and there's excitement now." |
|---|---|---|---|
| **Beliefs** | **I want to teach these kids, but how?**

"We have difficult kids."

"Some teachers used to say 'I don't know how to reach these kids'.

"Our kids are tough."

"Nobody wanted to go there - it was possibly cursed, down in a deep dark hole".

"There are multiple challenges here - behavior, multiple languages." | **I believe this might work enough to try.**

"This helped me rapidly improve my skills! It's really enabled us to have strategies to teach effectively."

"The [curriculum model] was probably one of the best things that happened in my teaching career." | **I KNOW how to teach my kids.**

"This is helping my students get to a deeper level of understanding - the strategies we have are really getting to a level of critical thinking."

"This program is helping us build independence in our students - they can better develop questions to help guide their own learning."

"I am so happy with the way we teach reading and writing now - I know we're on the right track." |

The High Efficacy Culture: We can teach the children in our classrooms.

The teachers, school leaders, and administrators in Portland discuss the transformed culture through several themes. An overarching theme of these conversations is an optimism about identifying and meeting the needs of their students. One of the greatest changes that the turnaround intervention created in Riverton was a shift in teacher attitude from one perceived as "those kids can't learn, they're poor kids" to "I need to learn how to teach these kids" to "I know how to teach my kids" (March, 2013). As part of this shift, teachers recognized that the population they were teaching is typically perceived as challenging.

"We have difficult kids," said one teacher. "They're poor, they don't speak English at home, and we're seeing them succeed. We now have the tools to do it!" (March, 2013). In one third grade classroom, fifteen out of nineteen students had ELL designations, and the teacher indicated that the structures provided by the reading and writing workshops helped students successfully communicate their thinking with each other. Another teacher said, "I've never had kids like writing. I've never known how to teach writing before," (March, 2013) as an example of how the climate at the school has changed. Previously, the students were perceived as coming from too great a deficit to write well, but teachers realized that the students were capable when provided the right framework and supportive instruction. A teacher in an upper grade said, "one thing that I've learned is I believe that kids can write, even kids that have difficulty, the volume that they write is so much greater" (June, 2014).

The result of this newfound confidence was that teachers felt good about their skill in and that students also felt a sense of accomplishment regarding their skill. "The

kids feel good about what they're doing! They feel successful," said one teacher (June, 2014). Another teacher, from an entirely different grade level stated, "The kids really like it. The kids feel successful and they really like writing and reading" (March, 2013). Children not only saw the volume of their work increase, they also saw the improvement of their standardized test scores, and they saw the support of their teachers in their efforts, as their work was displayed ("published") in the hallways.

The improvement in instruction and belief in both teacher and student efficacy was apparent to those in leadership positions in the turnaround as well. Kellie Smith, the Literacy Consultant, two years into the turnaround said, "we've already seen the student writing the volume, the amount, the scores have been improving because they are spending more time writing. The other things I can see is in demonstration teaching from last year to this year, students carried knowledge with them from the year before that they didn't have in the past year in that genre or that topic" (March, 2013). Leadership also noted that students retained learning over the year, as Malia added, " I think that what I hear from them are comments like, 'Wow, the kids came in so much higher this year. I didn't have to reteach blank, blank or blank' and 'I can tell they already notice genre. They knew so much more about nonfiction writing this year. I was able to teach more'" (March, 2013).

We can work together to meet the needs of our students. Collaboration is widely recognized as an important factor in school change and improvement, but the specific ways in which Riverton staff worked together around a common focus, goal, and curriculum was a significant factor in why the SIG intervention worked well in this setting. Collaboration was not confined to simply one level in this intervention -

collaboration occurred between school district leaders and the union, between school district leaders and the school leaders, the school leaders and the teachers, and between teachers. David Galin, the Chief Academic Officer, worked with Tracey Warren, the literacy coach to select the curriculum and build the professional development plan. The union and school district worked together to find a way to incentivize teachers through the existing system - an adjustment to their normal contract rules to help support these teachers. Jeanne Malia, the principal, often participated in the professional learning with the teachers. Teachers reached a place of trust in collaboration where they could work together to plan and implement curriculum - moreover, they felt comfortable enough to visit each other, workshop, and troubleshoot ideas about teaching together.

"Collaboration - everyone sees this, both in working with colleagues and union/administration," (March, 2013) stated one participant regarding the working environment in the school. The teachers highlighted many improvements in their ability to collaborate that occurred as a result of the professional learning initiative, including "this gives us a common language of instruction - we never had that before. It used to be that one teacher might teach 'writing a paragraph as a sandwich'...while the next year, the students would hear something entirely different. Now we have a way to talk to each other, and the students are hearing consistent instruction" (March, 2013). Others discussed the importance of the "consistent model" and "common strategies and tools" in supporting their work together.

The most remarkable change, from my perspective as a former teacher, was the "open door" policy at Riverton. Teachers discussed welcoming each other into the classroom. David Galin acknowledged this change, stating, "at Riverton, teaching is a

public practice" (May, 2013). "We welcome each other into the classroom now - kids are used to seeing people coming and going throughout the day" (June, 2014), said one school leader. Teachers discussed welcoming help and appreciating the feedback that comes through observation and interaction with their coaches and peers.

We have the support we need to help our students. The multi- and cross-level collaborative engagement in this district set the stage for this theme in the interview data. Teachers, the literacy coach, the professional development provider, and the principal expressed this in interviews. Additionally, observations made the natural and robust collaboration apparent. When describing a planning for a professional development session, Kellie Smith (the PD provider) discussed the importance of the coach in facilitating needed support: "It's her job to follow through with everything I do. She and I work very closely together. She tells me what the teachers need. I come in and support by modeling teaching supporting and then Tracy follows through. She makes sure that the same things are continuing to happen at each grade level. Sometimes we will start the weeks off with [teachers] bringing student work to the table" (March, 2013). Those meetings then became an opportunity for the teachers and the coach and provider to work with these examples to provide specific strategies and support.

A specialist teacher discussed being able to reach out to both the coach and PD provider for support and co-planning to help with students' specific needs: "[the PD provider] comes from the outside, and we sit with her and talk about what she is planning and what we can see might be potential problems. We can then strategize together" (June, 2014). When I visited a professional development session, over the course of two days, I saw many grade levels and teachers planning together with support. Shadowing Warren, I

frequently saw teachers approach her in the hall for support and strategizing sessions.

Sometimes their need might necessitate an appointment later in the day, but at other

times, it was possible to get needed feedback in that moment in the hallway - timely and

needed support.

In addition to the immediate on-site support and collaboration, teachers spoke of

the support of the district and union in their professional learning and lives positively.

The district and union recognized the significant professional development work and

extended effort of the teachers engaging in the turnaround school, and they negotiated a

way to reward this in their PLBSS salary structure. Typically, PLBSS salary credit hours

are rewarded for professional learning that occurs beyond the school day - however, the

intensive nature of the turnaround effort and the extended workday made additional

professional learning for the Riverton teachers nearly impossible. To this end, these

teachers were rewarded with enough salary credit hours to earn a lane change by the end

of the turnaround.

In describing the role of PLBSS in supporting their work, teachers said, "the

system is motivating. I can seek out what I need to do my job, and then I am rewarded for

it" and "I know that I am valued as a professional because of this system" (March,

2013). Beyond simply supporting the implementation of the turnaround at Riverton,

PLBSS provided a platform for sharing the professional learning developed in this school

with others in the district. Tracy Warren, the literacy coach, discussed the workshops she

provided based on Riverton's work to others in the district: "Many secondary teachers

signed up to take my reading course because they knew they'd receive SCH. When they

took those skills back to the classroom, which included differentiation techniques, they

were impressed with what they learned and the positive results. They've continued to seek out similar courses and look to build upon these ideas because we have this PLBSS system in place" (June, 2014).

The turnaround structure, in conjunction with the high value on professional learning already expressed in the district, provided a professional learning support structure for teachers who contributed to the success of this intervention in the district. Teachers had the materials they needed to provide students with rich reading and writing choices, they had the training and common language needed to actuate a consistent plan. School leaders ensured teachers' adult learning needs and physical needs were met (food during meetings after school, appropriate times to interact and stretch, etc.). The diagram below (4-8) details the support structure that Portland employed in Riverton.

Figure 4-8: Portland's Professional Support Structure

The support structure for teachers in Riverton School is rooted in the multiple layers of collaboration established in the district and extended into the school. When this

was coupled with high quality professional learning content and a quality curriculum to deliver, and supported by attention to human resource needs, the teachers benefited from both the intrinsic reward of watching their students succeed and extrinsic rewards of seeing their work recognized by the general public and salary advancement. This support system effectively reinforced the continued positive work in Riverton School.

After the SIG

With the English Language and Literacy interventions well underway at the conclusion of SIG funding, the school redirected some of its efforts into improving math instruction. While math achievement scores demonstrated gains in proficiency during the literacy intervention, the school had noticed the success they had achieved from developing a common approach to reading and writing in the schools, with a common language of instruction, and they expressed a desire to have a more unified approach to mathematics instruction.

   With the transformed, high efficacy culture established at Riverton School, it seems possible that the upward trajectory of academic performance could continue. Teachers had a belief in their own teaching that arose from having appropriate tools and support at multiple levels through the school and district. This belief in their own abilities to reach their students makes it more likely that they could continue to succeed in meeting their academic and professional goals in the school.

   The Riverton Elementary case demonstrates that a school can literally turnaround student academic performance, through changing its teaching and learning climate following the turnaround model, if they execute the model with fidelity and respond to

their local needs with appropriate actions. However, this leads to an additional question. Because the turnaround model is supported by large federal grants, the value to the public of such grants is debated, because along with model schools such as Riverton, come schools that receive the money, attempt to undertake the model, yet for various complications, do not persevere in changing the climate the way that Riverton did for the first four years after the grant began. Now, I examine the second research question: did the investments in Riverton's turnaround effort lead to long-term improvement? To address this question, I examined the following data sources: public records (including the Riverton SIG application, budget information from the Portland Public Schools website, and information from the Maine Department of Education websites), interviews, and observations. These data provide information about how the size of the grant, how the grant money was invested, and whether or not long-term improvement occurred at Riverton school.

I examine these data through two economic methods in an attempt to better understand what investments were made and the result of these investments. First, I discuss the expenditures by identifying potential areas of cost from the grant activities and discuss what potential funding sources of these activities and personnel were. Then, I use a cost-effectiveness ratio to gain some idea of the additional cost per student due to the initiative. This is followed by a social return on investment estimate rooted in the theoretical framework in chapter two. Finally, I discuss the reasonable ripple effects that improved literacy at the Elementary level can return to society. The connection between literacy proficiency in Elementary school has been made theoretically and conceptually

in chapter two -- I now examine what evidence is currently available to support that this grant resulted in a significant long-term change for the Riverton school community.

The Investment. According to the Maine Department of Education website, the total SIG grant to Riverton school was $3,386,154. Riverton was one of fifty-four schools identified in the state as qualifying to compete for the SIG by the federal Department of Education (Maine SIG application, 2009). Detailed budget information for at least one year of the grant was a requirement of the application. Allowable expenditures included salary and benefits; contracted services; supplies and materials; books; equipment; professional development activities; travel; administration; and indirect costs. According to a 2011 monitoring review by the federal DOE, the school level funding for Riverton was effectively $2,885,364. Approximately 14.8% of the initial grant was retained at the district level and/or to external evaluation of the grant initiative. It is unclear from the records available to me at the time of the dissertation what the exact nature of the overhead costs were. From working as a consultant on other grant funded initiatives, it's reasonable to believe that as much as 10% may have been allocated for evaluation, with district overhead responsible for the remaining portion.

In 2009-2010, the average per-pupil expenditure for Portland Public Elementary Schools was $10,242 (Maine.gov, 2015). The total operating budget the elementary level in Portland is $49,825,726. The SIG grant to Riverton was approximately 6% of the entire operating budget at the elementary level - a considerable investment in this district. Riverton is one of the largest elementary schools in the PPS district with an average attendance of 445 PPS Budget FY 2016). While I was not able to find the specific per-pupil expenditure (PPE) for Riverton, using the PPS average, it is clear that the grant

contributed a large increase in per-pupil expenditure over the three years of the funding

period. The local budget for Riverton increased by an average of $961,788. Given the

most recent size of Riverton school at the PPE rate in 2009, I approximate that the total

baseline PPE for Riverton in 2009, before grant funding was about $4,864,950 (PPE x

475).

Using data retrieved from the Maine Data Warehouse (2016), I estimate the PPE

expenditure and the increase in PPE over the grant. I multiply the number of students in

attendance by the PPE reported on the Data Warehouse. I divided the total grant funding

that reached the school level by three, to reach the average additional funding per student.

I then calculated the percent increase represented at the student level, which averages

about 21% per year, as demonstrated in table 4-2, on the next page.

Table 4-2: Change in PPE at Riverton (Source: Maine Data Warehouse, 2016)

Year	n of students	PPE baseline	Total baseline (n * PPE)	PPE increase ($961,788/n)	% PPE increase
2010-2011	447	$10,372.10	$4,636,329	$2,152	21%
2011-2012	397	$10,620.33	$4,216,271	$2,423	23%
2012-2013	425	$10,953.10	$4,655,068	$2,263	21%
Average	423	$10,644,34	$4,502,556	$2,274	21%

At the school level, the investment of $3,386,154 seems substantial -- and,

compared to other SIGs granted in the state of Maine, it is by far the largest (Maine SIG

application, 2009). At the pupil level, of a $2,274 for three years (or about 21% of PPE in those three years), the increase seems more reasonable, provided that it results in a transformation like that which happened at Riverton Elementary. While it is likely that the budget structure for this grant was not an evenly distributed amount of money over the three years, the documents detailing how the investments were made over the three years were not available at the time of this study. In interviews conducted between 2012-2014, it is clear that in the first two years of the intervention, considerable time was needed in professional learning to ensure that teachers were able to implement the workshop model with fidelity. In addition, they needed to purchase a broad library of books from which students could select their readings in the first year of implementation. The funding levels in years one and two of the grant were likely to be higher than the average of $2,274, with lower levels of funding in year three. Because the average is the best estimate I have during this dissertation, it will be used for analyses later.

The Cost of an Improved Working/Learning Environment. At the onset of this dissertation, I planned to examine the specific expenditures in several areas that likely contributed to an improved teaching and learning environment. From interviews, we know that these included building improvements, investments into books for students (materials), and improvements to the student and teacher libraries. A reading room was created, where the large collections of leveled books were housed, along with books intended for teacher learning. In addition, money was invested into the curriculum school wide. While these costs are likely documented by the school or district, these materials were not available for review for this dissertation.

Building Improvements. Interviews (March, 2013; June, 2014) make it clear that deferred maintenance had contributed to an unpleasant teaching and learning environment at Riverton Schools. As part of the turnaround effort, district and building leadership recognized the need for "brightening up" (March, 2013) the Riverton building. As previously stated, it was perceived as "dark and dirty" (March, 2013) before the turnaround effort. The improvements to the school were not large renovation projects - instead, they painted white walls that had been brown, provided new cork-boards for student work in the hallways, and dedicated some cleaning efforts into the place. The cost of these improvements is likely documented somewhere, but was not available for this dissertation. The improved teaching and learning conditions likely contributed to the change in teaching culture that occurred in Riverton. This investment was probably largest at the beginning of the grant, as it is one of the first changes described by leadership in interviews.

Books and Library Improvements. Again, it is unclear exactly how much was spent on creating a robust reading library for students. The initial investment was probably greater than subsequent investments, as books are somewhat durable. With 470 students at Riverton Schools, and 24 Guided Reading Levels (Scholastic, 2016), it's clear that a substantial number of books were required to begin the program. In the reader's workshop model, each child has a cache of five to ten books at their reading level to choose from during the reading workshop time during the school day. These books advance through the levels as the students gain reading proficiency. The program calls for a wide range of reading topics and genres so that students can find books that meet both their reading levels and general interests. This requires a vast library of books.

126

If a student advanced through an average of four reading levels per year and had five books in their cache at any one time, they would require at least 20 books per year. A wide range of costs is available for student books, from $1.95 or less for single copies of books to large grade-level book packs that range from $350-$3,000. Without knowing the specific selections at Riverton, it's impossible to estimate what was spent on books in the first year to begin the program. It's likely that some books need to be replaced from year to year due to wear and tear. In addition, new books are published yearly, and teachers wanted to order additional books for their students to meet additional interests (observations, 2013-2014). This was possible a large portion of the start-up costs of the turnaround effort, with some continuing expenditures in subsequent years.

Curriculum. Riverton teachers used Heinemann's **Units of Study** for the Reading and Writing Workshop model (observations, 2013-14). The current cost of the reading curriculum K-5 bundle with trade packs (student books) is $1,615 (Heinemann, 2015). With an average of three classroom teachers per grade level (K-5) during the course of the grant, purchasing **Units of Study** would cost approximately $4,850 (K-5 trade pack x 3 teachers per grade). The accompanying books for writing are a smaller investment - for example, **Writing Pathways** costs $48. "Quick guides", such as the **The Workshop Help Desk Series: A Quick Guide to Making Your Teaching Stick, Grades K–5**, cost $8.40 apiece (Heinemann, 2015). Providing a copy of these for each grade level teacher would be approximately an additional $1,000.

The investment in curriculum in the first year was likely around $6,000, which is not a large part of the additional yearly budget estimated above. This was less than 1% of the average yearly allotment of $961,788. And, it is likely that this investment was only

necessary in the first year of the grant, as the bindings of the materials were durable. This left a substantial remaining budget for providing professional learning for strategies in using these curricula choices, continuing investment in materials like books, and personnel.

<u>Cost of improved working/learning environment in summary.</u> Many of these improvements likely accrued expenses at the onset of the grant, but would have cost less in subsequent years. To provide an atmosphere conducive to continued improvement, maintenance of the building and upkeep on the vast reading library for students are important. Through observation, the building continues to be cared for with bright walls and ample space for displays of student work - it has not returned to a state of deferred maintenance. Continued upkeep of the building and grounds can easily be funded by the normal school operating budget, which makes this a sustainable aspect of the grant changes.

Keeping the library and book resources fresh and interesting to students does require continuous investment (students can be hard on books; normal wear and tear of reading trade books takes a toll), although I currently do not have data to indicate how much is required to maintain the library accumulated during the grant. From interviews and observations, reading continues as a priority for Riverton. However, at the time of the grant expiration, PPS was facing a large budget crisis (2013-2014), according to Chief Academic Officer, David Galin (June, 2013). While it is unclear whether or not this continued to be well funded past the grant, the large library of diverse reading materials was a critical component of the turnaround and would require maintenance to support continued academic growth.

The Cost of the "Right" Leadership. Leadership was identified as a critical element in turnaround success in both the literature and by the participants in this turnaround effort. In a conversation with Kellie Smith, the professional learning facilitator (June, 2014), I asked, "what do you think was the key change made at this school that helped it be successful?" She responded, "the Principal. Hands down, she definitely makes a difference." In addition to the excellent guidance of Jeannie Malia at Principal, the full-time literacy coach, Tracey Warren, also served as a teacher-leader. The human resource investments into these two critical positions were an important element of the success of this turnaround.

The Principal. Jeannie Malia was hired as the principal in the second year of grant implementation. As noted earlier in this chapter, the district had retained the principal who had been guiding Riverton before the grant in the first year of implementation. It was noted in the monitoring review by the US DOE (2011) that Riverton had retained the principal but that they had received notice from the district that the principal had resigned. At the same time, Malia (who was born in Maine, but had a long career in Los Angeles Schools as a literacy specialist and leader) was seeking a position that would allow her to return to her home state. Naturally, seeking the right leader for this initiative would have cost the district for advertising the position and conducting the search (a normal cost for when a principal tenders a resignation).

As a principal in PPS, Malia is entitled to salary and benefits, including health insurance, dental insurance, and an optional health savings plan. In 2014, the salary range for Portland principals ranged from a low of $75,145 for step 1, level 1 (one year of service with minimum education) to a high of $110,586 for step 10 level 8 (PPS principal

129

contract, 2014). With Malia's experience, expertise, and years of service in Los Angeles schools, it's likely that she is somewhere on the upper portion of the scale. Was this cost accrued to the SIG grant? It's unlikely, as a principal is part of the normal operating expenses of a school. For this reason, the choice of the right leadership is sustainable, provided that the job continues to interest and challenge her, while providing continued intrinsic and extrinsic reward.

The Full Time Literacy Coach. In Portland Public Schools, the literacy coaching position was normally a part-time position, with one person serving multiple schools. This was true of Tracey Warren's position before the turnaround initiative began in 2010, and her position returned to part-time status following the conclusion of the grant funding. Warren is a long-term educator in the PPS district and holds a master's degree in literacy (June, 2014), which would place her towards the top of the Portland Educators Association contract. She also teaches literacy courses at the University of Southern Maine. Appointing Warren to a full-time position at this school was necessary to ensure that teachers received the intensive, continued support of the professional learning activities provided by Kellie Smith (March, 2013; June 2014).

Warren's full-time appointment (and a similar appointment occurring at another school for different SIG intervention) also ensured that an additional position had to be created in the district to fill the needs of the schools that lost the part-time coaching from Warren and her colleague. Essentially, this means that it was likely that Warren's position was funded through the grant (or at least, half-funded by the grant), allowing the creation of another literacy coaching position to fill additional needs created elsewhere in the district through the normal budget. The plan was to build significant capacity during

the intensive intervention, and then return to the normal coach staffing plan at the conclusion of the SIG. The theory of the district was that at this point, critical capacity to continue the reading initiatives would exist in the broader teaching community at Riverton, allowing them to continue to work collaboratively to build and reinforce skill with less active coaching. A top of the scale teacher (as Warren likely is) on the 197-day contract (coaches appear have a longer school year, based on interview data) makes approximately $86,000 and benefits. Some differential pay (additional compensation) may be available, but this is unclear in the PEA contract (2014).

If the momentum and strength of the capacity developed during the intervention was as powerful as predicted by the district leadership, and they really could continue towards excellence with a part-time literacy coach, the Warren's position would once again be covered in the operating budget of the district. With planning, this could be sustainable, unless continued intensive coaching is needed to maintain the level of growth occurring in the school. If the high-efficacy culture at Riverton can continue with a lower level of support, it speaks to the strength and long-term sustainability of the intervention. However, I cannot say with certainty if the growth and gap-closure continued, due to the change in standardized test choice by the state of Maine and a lack of access to growth data in the district.

The Cost of Building the Teaching Capacity. One of the largest expenditures in this grant was likely the intensive, job-embedded professional learning. The first professional learning opportunity was a trip to Teachers College in New York, in which the teachers worked directly with experts in the reading and writing workshops and observed the use of these programs in NYC schools. Following this initial professional

learning trip, professional learning providers from Teachers College followed up on site in Riverton for the first year of the grant. Following the first year, Kellie Smith (the local expert discussed earlier) took over as the professional learning provider. At the time of this dissertation, specific information about the cost of this critical component of the program was not available.

Rewarding and Incentivizing Teachers. As previously discussed, PPS had a built-in program for rewarding and incentivizing teachers to participate in professional learning, established in the PEA contract through the PLBSS contract. While job-embedded work during the school day is not normally awarded credit towards salary advancement under the contract, the district and union worked together to reach an agreement that recognized the intensive, out-of-the ordinary nature of the SIG professional learning work. To this end, teachers who remained in the school during the turnaround received the equivalent of a lane change of credit. Although the value of lane change varies slightly by experience level, it is approximately $8,753 in additional compensation following the expiration of the grant. With 18 teachers, this could mean that the district encumbered an additional $157,554 in teacher compensation from the school at the end of the grant.

However, Riverton had teachers of many different experience levels, including some at lane 5, who had already achieved their maximum salary level. Some teachers did not complete the turnaround before transferring elsewhere in the district or leaving the district for appointments elsewhere. Finally, many of these teachers would have been participating in professional learning anyway, as this is part of the professional expectation and culture in PPS, due largely to their unique salary schedule that supports

132

professional learning (see Lawrence, 2015; Rallis, Churchill, Lawrence, & Darling, 2011).

In conclusion, the incentives for participating in the turnaround effort were found in pre-existing support structures and through the normal expected operating budget, which is a sustainable approach. Additionally, this ensured that grant funding could be spent on materials and resources that were out of the ordinary. Leveraging this pre-existing contract in this way both built on the foundational value placed on professional learning as part of the PPS culture and provided recognition of the hard work of teachers, with functionally no cost to the SIG funding.

The Cost of Structuring Professional Learning. In order to ensure that the job-embedded learning could occur as planned, adjustments were needed to the structure of the school. First, teachers needed to be able to meet collaboratively - and they needed to not have this time limited by the specialist teacher schedule (typically gym, music, and art in elementary schools, normally used to schedule "plan time" for classroom teachers). To provide additional coverage, long-term substitutes were hired. In addition, they needed to extend the school day, both as a condition for the grant and to ensure they had adequate time in which to employ the job-embedded professional development approach. Both of these structural changes meant additional costs above and beyond the normal operating budget of the school.

<u>**Long Term Floating Substitutes**</u>. As identified earlier in the section called "epi-model changes", the long term floating substitutes were critical support to the professional learning structure. The presence of these three positions ensured that an entire grade level could meet together for an extended period of time during the school

day. Because these teachers were permanent fixtures in the school during the grant period, they were familiar with the methods of instruction and were able to maintain more fidelity to the curriculum than a person called in to substitute for a one-day position could. In addition, students were familiar with these teachers, which meant that less instructional time was lost to children testing the knowledge and will of the substitute teachers.

These positions were most likely funded by the SIG, as they were beyond the normal budget expectations of a school. They were likely hired as step one, lane one teachers, which paid $34,679 in 2014, according to the PEA contract. It is unclear what the additional benefits for these positions would have been from the data available to me at the time of this dissertation, but if $18,000 is added to account for a health insurance plan and retirement contributions, the cost per year would be approximately $158,037. These three positions with the half-time position created for the Literacy Coach contributed to the school having at least 3.5 - 4.0 more FTE positions than their normal staffing arrangement, likely funded by the grant.

It was not possible in the 2013-2014 budget crises to maintain this level of staffing at Riverton School. However, Malia recognized how critical the floating substitutes had been as part of the structures that enabled time for collaborative professional learning to occur. To this end, she arranged to pool some days for substitutes to come in to support professional learning time from the school's normally budgeted substitute total as a way to continue to support her teachers (June, 2014). It is unclear from the data currently available if this strategy worked for sustaining the success and

momentum of the turnaround effort, due to the change in high-stakes testing and the state level and a lack of access to student growth data.

Cost of the extended school day. Extending the school day may seem as if it is a simple solution to politicians and high-level policy makers, but the reality for school districts is that it creates logistical challenges in systems that are fairly well established in most school districts. For Riverton, extending the school day created a challenge in transportation. Instead of running the busses for Riverton at times consistent with elementary schools in the district, the busses needed to arrive earlier and leave later than those serving other schools (March, 2013). Special education busing (some students require bus accommodations as part of their IEPs) also needed to adjust. This likely meant additional cost to the district for creating this structure - once again, data identifying the specific amount of this expense is not available at this time, but the point that this creates a burden for the district should be noted.

At this time, Riverton appears to have maintained the extended school day beyond the expiration of the SIG grant, which indicates that once the logistical issues around the start and end of the school day were resolved, they were manageable as part of the general operating budget. To this end, extending the school day may be sustainable once in place, provided that a district has the resources to maintain the program. It is not clear if Portland was required to keep the extended school day at Riverton following the grant as a condition of the grant or if they believe this was part of what contributed to an effective turnaround.

What was the reward?

The investment in Riverton School yielded multiple tangible rewards. First, a positive change in the teaching and learning culture occurred as a result of these well-planned and supported activities. In the teaching community, the culture shifted from a low-efficacy culture to a high-efficacy culture. For students, the success of the intervention effectively raised the achievement of their peer group, which has a positive effect on group achievement in a school (Checchi, 2006). Essentially, success begets success for both students and their teachers -- and if the cycle of positive efficacy continues, long-term sustainability of this change is likely.

At the beginning of this project, I had hoped to provide a cost-effectiveness ratio describing how the amount spent on teacher professional learning and support of that professional learning resulted in the effect of increased teacher efficacy. However, the exact amount spent on structuring the learning opportunities in the Riverton grant is not currently knowable, due to the absence of district documents about these costs at the time of writing. A portion of this grant was spent on books, supplies, and addressing deferred maintenance in the school - this money, while essential to the change in the climate and to providing materials with which to teach, does not necessarily contribute to raising teacher efficacy.

I had planned to total the expenditures in professional learning and the support personnel hired to ensure the professional learning would be reinforced in the context of the school day, divide this total by the number of teachers involved in the turnaround, and provide a cost effectiveness ratio, which is (Change in Cost)/(Change in Effect) (Levin & McEwan, 2001). Early in the chapter, a change in teacher efficacy was noted in the

qualitative data. The improved teaching capacity and belief in that capacity is a large part of the cultural change that may lead to long-term sustainability of this grant-funded initiative.

While I do not have access to a specific amount spent on raising teacher efficacy, I do have access to a student level indicator, which is increase in PPE, discussed earlier. Checchi (2006) discusses how the relative success of a peer group is an important factor in predicting how well a group of students achieves in an educational setting. For this reason, I argue that the high-efficacy culture in the teaching community extends to a "higher-efficacy" culture in the student community. As the test scores improved, essentially the achievement level of the peer-groups improved.

At the student level, PPE rose by an average $2,274 per year for Riverton students. Over the three years of the grant, the total investment per student was $6,822. Based on the 2010-2011 reading NECAP proficient or above as a baseline (36%), the NECAP results in reading in 2013-14 rose to 60% of the school - 67% higher than in 2010-2011. The cost effectiveness ratio of (change in cost)/(change in effect) therefore is $6,822/67% more students reaching proficiency or above in Riverton school in the year following the expiration of the grant. While I have no other program to compare this turnaround effort to other than the potential status quo, the PPE increase was around 21% more than the average spent on elementary students in Portland, ME for three years. Given that forty-one more students were able to achieve proficiency or above in the year following the grant (see table 4-3), the reading intervention certainly resulted in superior results than the baseline.

Table 4-3: Students achieving proficiency and above school-wide compared to baseline % achieving proficiency or above (Source: Maine DOE Data Warehouse, 2016)

Year	n of students tested	% proficient or above	number of students proficient or above	Possible number of students proficient or above if 2010-11 baseline had remained
2010-2011	194	36%	70	n/a
2011-2012	172	53%	91	62 (+30)
2012-2013	157	55%	86	57 (+29)
2013-2014	174	60%	104	63 (+41)

Social Return on Investment

My estimate of social return on investment for this program is rooted in the theory (and research) that elementary literacy leads to high school graduation, and that high school graduation provides return to society through better employment opportunities, reduced dependency on social services, and decreased likelihood of incarceration, thus reducing long term costs to society. While this theory of action leads to the most tangible monetary value, other positive returns to society are likely to occur as a result of this grant. In this section, I first discuss a logic-model based social return on investment rooted in the literature described in chapter 2. Then, I discuss benefits generated by the intervention that are likely to generate social returns, but have less clear paths to monetize.

Table 4-4: Logic Model for SROI

Input	Short-term Outcome	Long-term Outcome	Long Term Economic Benefit
Intensive English Language Literacy program delivered at Riverton	Student achievement in reading rises	Students have better chance to graduate from high school	Long-term economic harm produced by dropping out prevented
	Students gain better communication skills in English	Students help non-English speaking family members have better access to goods and services	Families experience greater access to the mainstream economy
	Students better able to access entire school curriculum	Some students will not only graduate from high school, but continue with higher education	Larger community benefits from return of students with higher education

To estimate the social return on investment during the grant-funded period, I focus on the third grade reading results from 2010-2014. As stated in my chapter two, Hernandez (2011) establishes that third grade reading proficiency is an important predictor of high school graduation, and for this reason, I limit the focus in this section to the third grade students achieving proficiency or above on the reading NECAP. While the reading gains schoolwide in 2013-14 demonstrate impressive gains, the importance of the third grade data point is explicit in the literature – and, while I suspect that reading at proficient or above by the end of elementary school also has some benefit in dropout prevention, I do not know the details of this relationship. Later, using the $260,000 estimated cost of a

dropout to society (McClendon et al, 2011; Amos, 2008), I calculate the likely savings to society generated by the improved third grade reading capacity.

In the following table (4-5), I calculate how many more students achieved proficiency likely due to the literacy intervention in Riverton School than would have if no intervention had occurred. I use the 2010-2011 percentage of proficient or above students to approximate what the baseline of students achieving at this level may have been had no intervention occurred. I then subtract this approximation from the number of students who did achieve proficiency or above in the years following 2010-2011.

Table 4-5: Number of students who achieved proficiency above likely baseline (Source: Maine DOE Data Warehouse, 2016)

3rd Grade Cohort and Dose	# Tested	% Proficient or Above	# Proficient or Above	Difference from year 1 of intervention if achievement had held steady
2010-2011 test 1 year of intervention	68	32.4% (used as baseline)	15	N/A
2011-2012 test 2 years of intervention	58	50%	29	10
2012-2013 test 3 years of intervention	58	44.8%	26	7
2013-2014 4 years of intervention (full dose)	66	56.1%	37	16
Number of third graders achieving proficiency more than				33

what baseline percentage of passing would have implied.	

Because the entire grant was not focused specifically on the 250 tested students above, it is necessary to approximate what the investment was at this grade level in order to calculate the social return. For this, I turned to the average Per Pupil Expenditure (PPE) increase ($2,274), calculated earlier this chapter. I then multiply this additional PPE by the number of students in the class in the tested year, then by the number of years of intervention they had received. I then total this additional spending to reach an approximation of how much was invested specifically into these students.

Table 4-6: Amount of additional PPE per grade from grant

3rd Grade Cohort and Dose	Class Size	Years of additional PPE ($2,274)	Grant funds invested per cohort
2010-2011 test 1 year of intervention	72	1	$163,728
2011-2012 test 2 years of intervention	60	2	$272,880
2012-2013 test 3 years of intervention	65	3	$443,430
2013-2014 4 years of intervention (full dose - only 3 had additional funding)	69	3	$470,718
Total of additional PPE provided by grant for these students • 14.8% overhead ($199,912) = Grant spent on 3rd grade students (2010-2014)			$1,350,756 + 14.8% = $1,550,668

The next step in the logic is to calculate the reduction in the likely number of high school dropouts that will likely happen as a result of this intervention. According to Hernandez (2011), the dropout rate is around 4 percent in those students who achieve reading proficiency by third grade, and it around 33 percent for students who do not achieve reading proficiency by their grade and are affected by poverty. As Riverton has a high percentage of students in poverty, I use 33 percent to estimate the number of students who may have dropped out had the intervention not occurred.

Because thirty-three additional students achieved proficiency compared to that predicted by the baseline achievement percentage, it means that with the intervention, the number of likely dropouts is around 1.32 instead of a possible 10.89 from the baseline averages. Approximately ten cases of dropping out of high school may have been prevented because of students reaching proficiency or above. The long-term cost to society therefore has been reduced to $343,200 (estimate a) from a likely $2,831,400 (estimate b) in economic loss if the intervention hadn't occurred.

During the grant-funded period, this intervention may have generated a social impact value (SIV) of $2,488,200 (estimate b - estimate a) in savings to society from dropout prevention. The initial investment amount (IIA) is $1,550,668 (from table 4-6). The Social Return on Investment ratio equation is SROI = SIV-IIA/IIA. Therefore, the SROI = .60 in savings to society from likely dropout prevention attributed to this turnaround effort over the payback period of the students' lifetimes. This means that for every dollar expended, an additional $.60 is returned along with the initial investment.

If the achievement level remains steady in the three years following the grant, it may be possible for society to see further returns, provided that the district's theory that

critical capacity for continuing the work with a return to lowered funding and support

would develop during the funding period occurs as planned. The following table

estimates what the continued gains in third grade reading proficiency could be, based on

class sizes as they were reported to the Maine DOE Data Warehouse 2014. Using the

2010-2011 proficiency rate as the low-end baseline and 2013-14 as the high-end, I find

how many more students are likely to reach proficiency or above in reading as a result of

the continued intervention. Noting that 2-3 students per year usually are not tested on the

NECAP, I estimate the number of students likely to be tested as 3 less than the total

number of students per grade. This table is only a projection, however, as the NECAP is

no longer the state assessment and the number of enrolled students represented here is

from 2014 reporting.

Table 4-7: Projected number of additional students reaching proficiency because of
continuing improvement post intervention (Source: Maine DOE Data Warehouse, 2016)

Cohort (All years receiving full intervention)	Number enrolled	Likely # tested	# likely to reach proficient based on 2013-14 rate (56.1%)	# likely to reach proficient based on 2010-11 rate (32.4%)	Difference
Grade 3 (2014-2015)	76	73	41	24	17
Grade 3 (2015-2016)	76 (estimate from 2014-15 grade 2)	73	41	24	17
Grade 3 (2016-2017)	73 (estimate from 2014-15 grade 1)	70	39	23	16
Projected number of students reaching third grade proficiency more than predicted by baseline rate, three years past grant expiration.					50

As above, I calculate that the intervention may prevent 14.5 dropouts, as the Hernandez (2011) rate estimates that 4 percent of those reaching reading proficiency by third grade (2) will dropout compared with 16.5 possible dropouts at the 33% rate. This means that the resulting cost to society for the potential dropouts will be reduced to $520,000 (estimate c), instead of a possible $4,290,000 (estimate d). The projected SIV for the three years following the grant is $4,289,480 (estimate d - estimate c) in projected savings to society from the lowered high school dropout rate that results from proficient reading in third grade.

The investment of this grant could continue to return savings to society over the lifetime of these students and for cohorts to come, as long as the intervention truly remains established practice at Riverton. Given the SIV from the grant-funded period of $2,488,200 and the projected SIV of $4,289,480 in the three years post grant, the six year SIV for this grant could be $6,777,680 in savings to society due to reduced reliance on social support agencies and returns in income/tax revenue from high school graduates. Since the programming of the intervention is continuing past the grant funding, it is reasonable to expect that similar savings will occur with subsequent cohorts. If the level of students reaching proficiency or above climbs, as the trend indicated during the turnaround, and the students do experience greater graduation rates, the savings to society could be higher.

Again, the SROI ratio formula is (SIV – IIA) / IIA (Folger, 2016). For the IIA in this calculation, I select the full amount of the grant, as by the end of the 2013, it was completely expended and the students in the lower grades continue to benefit from the grant. Accordingly, the project SROI ratio ($6,777,680 - $3,386,154)/$3,386,154) = 1.

Three years past the grant, if the fidelity to the curriculum and strategies taught during the intervention remains, the savings and revenue generated from the likely dropout prevention from a well-grounded and executed literacy intervention more than pays for itself over the lifetime of these students in savings to society. Granted, the payback period of this grant will be the lifetime of these students, which is longer than most ROIs use, but I do not think this is unreasonable when discussing something as critical as literacy.

As much as the projected savings to society as a result of this intervention based on the chances for a more economically productive life as a future high-school graduate for these third graders achieving proficiency suggest a compelling reason to continue SIG-type funding, the Riverton case is one in which the ripple effects of this intervention are likely be far reaching. Because of the immigrant (largely refugee) population at Riverton, many students come from homes in which a language other than English is the primary form of communication. Providing these families with a child who can proficiently read and communicate in English, and can likely graduate from high school and find gainful employment in the future, alters the trajectory of entire families and communities.

While observing in the school, I witnessed a mother from Somalia relying on her oldest son to translate during a response-to-intervention team meeting. This adult son was able to provide an essential service to help his mother understand what was happening and was able to help her understand the services that were being offered to support his sibling's learning. This illustration is one example of how a student with English reading and writing skills, gained while a school child in the US follow arrival as a refugee from central Africa, contributes to improving access to services for his family. Because he was

able to both translate and interpret what the meeting for his sister meant to his mother who could not communicate in English, his sister has a better chance of accessing the curriculum for herself because of the services that will be provided to her as a result of the meeting (June, 2014). This is one example; however, this intervention appears to have reached a large percentage of Riverton students in a meaningful way. The ripple effects of this program on the community will likely be unfolding for years to come.

A final word about sustainability. If the high-efficacy culture established at Riverton Schools remains in place and teachers can continue to nurture and support each other in their teaching endeavors, this grant will have resulted in sustainable change. They established many good practices, found a skillful and caring leader in Jeannie Malia, and recognize the value of having a common language of instruction and working together in a way that they likely did not before the grant. At the school level, this remains sustainable if the structures and supports that are in place continue to meet the needs of the Riverton teaching community. If the teaching community is able to create self-sustaining ways of supporting each other, additional benefits, such as a reduction in teacher over-turn and retraining costs may occur. For the students, achieving proficient or above literacy at the Elementary level is likely to result in long term, sustainable change in their lives, as early literacy can change the trajectory of a lifetime. For society at large, this grant is likely to be sustainable because of the long-term economic harm it likely prevents.

However, given the data available when this dissertation was written, it is really difficult to ascertain whether or not the powerful change that occurred during the turnaround initiative continued in 2014-2015 or 2015-2016 and beyond. The change of

the statewide tests made it impossible to compare what had been happening at Riverton to what is happening now in any definitive way - so the SROI draws on speculation about what may have happened had this change not occurred. As the results of the Smarter Balanced Assessment were poor, this unintentional intervention may have had an impact on the cycle of "success begets success" discussed earlier in this chapter.

Looking at the Riverton example, it is clear that the SIG program has the potential to make powerful change in the opportunities for learning students at underperforming schools. While it is one successful case, they made adjustments to the model and had structures in place (like PLBSS and a strong history of district-union collaboration) that helped to make the model work in this context. Whether or not the program is sustainable over the long term, it made a critical difference in the lives of the students who attended Riverton who attended between 2010-2014.

CHAPTER V
LEARNING FROM THE SUCCESS STORY

In this chapter, I explore some of the lessons learned from the Riverton example for

grant-making and evaluation practice, and I discuss potential future research

opportunities that build on the work started in this dissertation. First, I discuss some of

what I believe are salient learnings from the findings in this dissertation in terms of

crafting educational policy and grant opportunities. Following this, I revisit the potential

model for evaluating turnaround efficacy that I proposed in chapter two. Finally, I

identify opportunities for future research that build from my current research.

What can we learn from Riverton about crafting effective grants?

When I first started exploring the changes at Riverton School, and how the

performance of Riverton appeared to outwardly contrast the ideas put forward at the

beginning of this dissertation that turnaround schools are rarely successful, I hoped to

find information that could be generalized and codified to inform better implementation

of turnaround schools nationwide. At this end of this project, my view is now that

Riverton is an example of a well-planned and faithfully executed program that followed

the turnaround model with great fidelity. They selected a highly-aligned-to-the Common

Core approach to a key cognitive skill (literacy) as the basis of their turnaround, provided

true coach-supported, job-embedded professional development, and invested into

providing an ample selection of books of varying interests and reading levels for the

students in the school. They adjusted systems of support around the school such as

providing floating substitutes) and ensured that teachers could truly have time to

collaboratively engage in learning and provide each other feedback.

Beyond fidelity to the model (and making changes to the support system to ensure the model can happen) as an important factor in their success, what else can Riverton teach us regarding the successful turnaround of a school? They selected the right leaders for the initiative - however, this factor is clearly identified in the literature as important to successful change. Like the successful cases in Yatsko et al (2015), the Riverton turnaround was had a "laser-focus". However, I suspect that the content choice of this laser-focused initiative was one of the crucial elements to the (likely) success of this school. As indicated in the second chapter, the critical role that early literacy plays in high school graduation rates, future employment rates, and more means that it is an especially important, if not critical, area of focus for this kind of initiative. Without a strong baseline in the printed word, other content areas in schools remain largely inaccessible to students. In Riverton, we saw that they created a unified focus and approach to reading and writing. With a good baseline in these areas established, they were then ready to take on the challenge of raising their mathematics achievement scores.

Riverton's story is an example of a way in which a policy instrument like a SIG can have a dramatic effect on the learning of students and perhaps alter the trajectory of their lifetime as a result. However, the SIG is not universally regarded as a miracle-like change maker for schools – many schools fail to make improvement through the use of SIGs. Riverton's example shows how important getting the "right fit" for many of the components is, whether this is the best leader for the job, the right personality and knowledge base in the professional learning environment, a curriculum that meets the needs of the school, or changing support structures to provide better collaborative learning opportunities. However, how does one integrate a directive like "find the right

leader" and "make sure you select a singular focus initiative that fits your community"

into a policy directive?

If these directives were integrated into the SIG application or into the process for

selecting SIG recipients, would it actually result in more successful turnaround schools?

Politically, more directive strategies by the Federal DOE tend to be unpopular with a

large portion of the general public and teaching community (public reaction to the

Common Core is an example of the public reaction to more directive policies from the

federal level – consider the outrage many have had to the idea that standards for learning

should be consistent between states). For many of the components of the Riverton SIG

intervention, it would be difficult to craft a directive to ensure fidelity. For example,

Jeannie Malia is generally regarded as "the right leader" (March 2013; June 2014) in her

role as principal. Almost no policy directive could ensure that a district hire "the right

leader" in every turnaround context.

Further, the selection of the reading and writing workshop as the choice of

curriculum at Riverton worked particularly well in the context of Riverton School. While

this curriculum is generally regarded as well aligned to the Common Core standards and

of high quality, not every school that implements the reading and writing workshop

experiences the dramatic results that Riverton did. Many factors may contribute to these

differences. For example, teachers may have selected a menu of books that were

particularly engaging for their student population. They may have been able to provide a

more robust library of books due to the large size of the turnaround grant. The ability to

truly personalize the learning experiences of students in the context of this school may

have been another factor. Therefore, I cannot say at the conclusion of this dissertation

that the reading and writing workshop is a curriculum choice that must be codified –

however, it is clear that selecting a quality curriculum that the school can consistently

employ is likely necessary for turnaround efficacy.

Additionally, the Riverton example illustrates how schools may need to consider

what additional supports are needed in their school to make many of the mandates of the

model possible. The clearest example of identifying and filling this type of need is the

addition of three floating substitutes to the school. In other SIG funded elementary

schools in other districts I have visited, the job-embedded professional learning aspect of

the initiative is limited to the time provided by the specialist teachers schedule – that is,

teachers planning (or break) time. The addition of these floating substitutes allowed for

flexibility, consistency of teaching model, and familiarity for the students and teachers. It

preserved planning and time and breaks, which are important to a teachers' ability to plan

for instruction and maintain a sense of well-being during the school day. Of the epi-

model changes identified in chapter four, I consider this to be one of the most universally

applicable recommendations as addition to current SIG policy. It remains to be seen if the

success of the SIG continues upon returning to a reliance on day-hire substitute teachers

for professional learning release time.

This SIG-funded program to support English Language and Literacy acquisition

for students at Riverton may have had dramatic effects in the lifetime earning potential

and career trajectory for the students at Riverton. While I have presented the argument

that the initiative may return an impressive social return on investment (between 60-

100% return over the course of the lifetime of the students who achieved proficiency),

this return is in the form of savings. To this end, I believe that initiatives like this one that

151

so greatly improved the academic performance of students are better framed as a form of economic prophylaxis – that is, this initiative really prevents long-term harm to the economy created by underachievement in education.

The ripple effects of this SIG over time underscore the importance and urgency of crafting and supporting educational programs and policies that raise achievement for the students most in need. If students are better able to achieve high school graduation because of success in elementary reading, they may have access to college. As a result of the improved academic attainment, their children become more likely to read and write with proficiency in elementary school and beyond – the destructive cycle that leads to poverty, social service dependence, and imprisonment generation to generation is disrupted. Not only are the current Riverton students likely to be able to read and write proficiently at grade level, their own children will be more likely to also achieve at these levels.

Finally, I want to address the issue of grant size when it comes to creating a successful SIG initiative. Riverton was a notably large SIG award – it was the largest awarded in the state of Maine that year, and remains the largest award in the three years of SIG funding that follow the award of this grant. While the Riverton grant was over $3 million, the state of Maine only had $1.7 million to award statewide in the previous year (Maine DOE website, 2016). Despite being a large award, the average increase Per Pupil Expenditure was about 21%. In Portland, this meant that the investment into Riverton students was similar to the average spent on high school students for three years.

This summary, however, begs the question: in SIG funding, does size matter, or is simply how it is used? Was this initiative particularly successful because he funding was

152

sufficient for the district to make the adjustments to staffing, order the materials

necessary, update areas of deferred maintenance in the school, etc.? It seems likely that

this initiative could have easily failed if underfunded. When grants that demand many

structural and system changes to occur are funded at lower levels, it places more strain on

a system that is already not meeting the burdens placed upon it. It may be more effective

use of SIG monies to award fewer, larger grants to schools with very well developed,

"laser-focus" plans that are likely to succeed (Yatsko et al, 2015) rather than taking a

diffuse approach that awards smaller grants to many more schools. While further

investigation into this area is merited, one of the take-away points of the Riverton

example may be go big or go home when it comes to grant-funding. The large grant

ensures that adequate funding for the necessary changes is possible – a smaller carries no

such guarantee.

What can we learn about evaluating turnaround efficacy?

The need for consistent, well-defined parameters for defining and identifying both

schools in need of a drastic intervention and focused investment to support such an

intervention, as well as how to identify when this school has adequately turned around

remains an issue - an issue that is not particularly well informed by research, despite

discussion in the literature. To make a clear model for identifying schools most in need of

intervention would involve consistent practices in metrics and assessment used to identify

student performance. Beyond the issue of changing standardized tests and standards, it is

unclear that the assessing schools through their proficiency levels is nuanced enough to

inform grant-making or decisions about interventions. As Hansen (2012) argued, growth

153

measure may provide a more consistent and fair metric for determining the relative

success of a school. And, as was the case for my research, the formative (growth)

assessment used in the school I was studying was likely the more consistent metric, but I

did not have access to it. After all, I was unable to obtain consistent achievement test data

for more than 5 years because of shifts in policy beyond the school level.

Given the importance of investments like large SIGs to schools faced with the

critical task of improving teaching and learning conditions for their teachers and students,

a major challenge to evaluating turnaround efficacy over time exists because of the

rapidly evolving nature of standardized testing in federal and state education policy.

Since the 2001 Reauthorization of ESEA (commonly called "No Child Left Behind"),

standardized testing has become an integral part of the way student learning and school

efficacy is assessed. However, the high-stakes achievement testing alone does not

provide enough information about the strengths and needs of an individual school. To this

end, I proposed the following criteria for assessing whether or not a turnaround has

occurred in a school in Chapter 2:

- Achievement change: Does the school make progress towards closing

  achievement gaps (e.g. is the difference in performance between this school and

  the state average narrowed) over the grant period? Does this progress continue

  following grant expiration? Additionally, does student growth exceed the average

  for the district or state in which a turnaround is located? If so, this would indicate

  progress towards gap closure was occurring, as by definition, students would need

  to experience faster than average growth to "catch up" with their peers.

- Professional culture: Does the professional culture within in the school change for the better during the grant period? Is the positive culture sustained beyond the grant period?

- Community perceptions: Does the broader community in which a school is located recognize a change has occurred in the school? Do public perceptions of the school (parental comments, newspaper articles, etc.) become more positive during the intervention?

Riverton was making clear progress by the first item in this list for four years. On the NECAP, the achievement gap between Riverton students and the state average had narrowed considerably. When last calculated in 2013, the growth score compared to three other samples schools in the district was high (Rallis, Keller, Lawrence, & Soto, unpublished study). However, I am not able to confirm that this pattern continued following the expiration of the grant funding, because of a change in the high stakes testing in one case and a lack of access to data in the other.

This illustrates that the most challenging aspect of the turnaround to assess over time is that the access to consistently normed tests. This point was illustrated by the change of the NECAP to the Smarter Balanced Assessments in 2014- 15, then a moratorium placed on standardized testing in Maine in 2015-16. Riverton Elementary had been declared a persistently underperforming school under an assessment used before 2009. They had markedly improved performance on the NECAP, the assessment used between 2010-2014. When Smarter Balanced replaced the NECAP, it was it impossible to compare the performance of 2010 to the performance of 2015 using this test. Because I theorize that part of the success of the culture change of school was rooted in the

experience of success and understanding that the efforts were worthwhile, some harm may have occurred when the teachers saw achievement levels return to a low level according to the new test.

The policies driving funding and the policies driving test choices are frequently made by different people with varying agendas, but given the growing sentiment that decisions for the public good should be evidence-based, some consideration to ensuring continuity of assessment strategies through a grant period is merited. Many good reasons exist for states to reconsider their standardized assessments and seek the best fit for their standards and goals frequently, but it is also important to be able to make apples to apples comparisons when a school has undergone a major intervention like a SIG. This could include an extended period for phasing out a testing product, having psychometric experts conduct an item by item comparison to give policymakers and evaluators a clearer picture of how closely the tests correlate, and/or ensuring that multiple measures are used to assess school performance and that one of these measures stays consistent through a study period.

The evidence of the cultural change and the changed perceptions of the community, however, are somewhat easier to identify. When I last visited Riverton, the tangible positive attitude of the teachers and the visible involvement of their students in their reading and writing work was apparent. Additionally, I sat and casually discussed the school with a few parents when I visited. One indicated that she had previously enrolled her children in Catholic school, but brought them back when she heard about the good things Riverton was doing. Another spoke about how thrilled he was with his child's progress. In the local newspapers, many positive stories and opinions about

Riverton's change in achievement ran (see Wood, 2012; Konig, 2012; McCrea, 2015).

Parents and community know whether or not a school is good, as do the students

attending. As the community and students perceived the school poorly in the past, this

new positive perception seems to be a confirmation the cultural shift that occurred during

the turnaround funding has continued.

While taking an ethnographic approach to address the question of cultural change

was possible in the context of completing a dissertation, this approach may not be cost- or

time-effective for policy makers or officials seeking rapid information about the success

or failure of grant funded initiatives. My current approach allowed ample time for

understanding in what ways the culture at Riverton shifted, and time allowed important

ideas like teacher efficacy and "laser-focus on literacy" to come into focus. However, one

might consider using pre-existing school climate surveys or teacher efficacy tools to gain

some indication of whether or not school culture shifts during a turnaround initiative.

Data on public perceptions about the schools can be found through newspaper articles,

reviews on schools on public websites like greatschools.com, and more - one does not

necessarily have to be present on the ground at every turnaround to assess this aspect of

the model.

While this proposed model of evaluating turnaround efficacy may be somewhat

more time and labor intensive than the current suggested practices of examining testing

data alone, it does provide a broader perspective than trying to assess the efficacy of a

SIG-funded initiative than seeking answers from test scores. When large investments are

made into improving school quality, it is important to be able to assess whether or not

these programs work as intended in complete way - and, relying on measures that are

subject to change because a testing vendor changes at the state level leaves policymakers with incomplete or misleading information. For example, when the Smarter Balanced Assessments were used, Riverton's results would have made it appear that no turnaround ever occurred (25% proficient or above, Maine DOE Data Warehouse, 2016). However, consideration of multiple data points, as has been done here, paints a picture more consistent with turnaround success.

Areas for Future Research

The Riverton Turnaround continues to provide many opportunities for my research agenda in the coming years. First, I discuss my interest in taking a more robust approach to the social return on investment. This is especially important to me as I truncated much of what I had planned at the onset of this dissertation due to a lack of data availability. Second, I discuss the opportunity to trace the outcomes of the initiative as the first cohorts of Riverton students to benefit from the turnaround reach graduation and beyond. Finally, I identify additional potential research sites in Portland that may also provide insights into understanding what does and does not contribute to a successful turnaround.

One of the areas I would like to develop further is an exploration of the economic effects of this grant over the long-term. While I had based an estimate of return on investment on literature created by others, an SROI with more finesse and consideration of the local context is possible. This SROI was based on a 2008 calculation by Amos, which provided an idea of the cost of dropping out to society and the idea of Hernandez (2011) that reading proficiency in third grade leads to improved chances of high school graduation. However, these factors are based on national averages from eight years ago. The Portland economy may have contextual influences that result in differences in

specific earning and tax return rates, as well as utilization of the social services network from the national average. Also, as Hernandez identifies "proficiency" in reading at third grade as key to graduation, I selected to use NECAP as the proxy for proficiency. However, the definition of "proficiency" changes between tests because of differences in standards. As the national standards conversation continues to evolve and testing changes to reflect this changing conversation, the baseline for "proficient" will also change.

Additionally, while third-grade literacy was identified by Hernandez as key for predicting graduation, it seems reasonable that a student "catching up" by fifth grade may also experience a better chance at graduation. It will soon be possible to explore whether or not this is true for the Riverton students. The students who were in fifth grade in 2010, and received only one year of the reading and writing workshop intervention, are likely in tenth grade in the year I am writing this dissertation (2016), with an on-time graduation date of 2018. The next cohort of students, who received two years of the intervention, will graduate the following year. In 2020, all those who were in the tested grades at during the grant-funded period will have passed the predicted point of high school graduation. This means that the actual high school graduation rates for the students who participated in the initiative could be traced and assessed.

It's important to consider that the students who were tested at the end of the grant-funded period did not receive a full dose of the intervention. Since the reading and writing workshops are school-wide initiatives, the program begins in kindergarten. The first cohort of students to receive the full dose will likely graduate in 2022-23. If the teachers maintain fidelity in the curriculum, strategies, and techniques used during the SIG funded period, the graduating class of 2023 would likely be the first cohort of

students to demonstrate the effect of a consistent reading and writing program from grades K-5. This can provide an opportunity to see if dose of a program such as the literacy and language acquisition initiative matters in the graduation rates, as well as test the theory that a student catching up by fifth grade may also have a better chance of graduation.

For these reasons, a much more sensitive evaluative social return on investment could be calculated over time. Such an analysis could provide important information about the function of elementary education (specifically in literacy) in the economic lives of students. While it is not debated in the education economics sphere that the return to society of education consistently outweighs cost, it appears heavily contested in the political sphere. The ripple effects of education into a community continue to interest me, and a community like that in Portland provides a "want-to-doable, should-doable and can do-able" (see Rossman & Rallis, 2016) opportunity to explore how education affects economic outcomes for students as they grow.

The success of the Riverton turnaround illustrates that school-wide change can happen, and that the leadership in Portland were able to successfully construct and implement a course of action to alter the trajectory of a failing school for the better. However, Riverton was not the only turnaround school in Portland at this time; East End community school received SIG funding in the following year (2010) to implement a turnaround initiative. However, East End remained eligible for SIG funding (although unable to apply due to having previously been awarded a SIG) as a persistently lowest-achieving school in 2014 (Warren, 2014). The East End turnaround attempt also focused on English Language and Literacy acquisition and employed a similar model to that used

at Riverton (October, 2012). It would be interesting to explore what happened in a school that had similar supports from the district, similar intent, but very different results. While it's not really possible to compare one school site to the next, understanding what happens in a case that was not successful may be as informative as the success story in terms of understanding issues in both grant-making policies and evaluation.

Conclusion

While the Riverton case is interesting, compelling, and perhaps inspiring, many questions are left unanswered. First, it is not clear whether or not the change created under the SIG really continued past 2013-14, through the academic achievement measures available. While the school culture was much improved at the end of the grant, it is difficult to ascertain how resilient this new culture will be in the face of new central office leadership (the superintendent, chief academic officer, and many other central office positions changed in 2015), changing priorities and shifting standards and assessments, in the challenging context of an urban school. It's unclear if the culture of teaching and learning would continue when funding returned to the standard level, or if additional supports would be needed to sustain the culture long term.

What is clear at the conclusion of this dissertation is that it is possible to create a high-quality and effective elementary program of study in a challenging school context. With the likely benefits to students, the community, and society as a whole that result because of improved elementary reading levels, funding instruments like the SIG can be a force for tremendous public good when used well. The importance of crafting effective

programs from these grants is clear, and the knowledge base about the elements that lead to grant success can continue to improve.

BIBLIOGRAPHY

Aaronson, D., Barrow, L., and Sanders, W. (2007). Teachers and student achievement in the Chicago Public High Schools," Journal of Labor Economics, 25, p. 95-135.

AIR - American Institutes for Research. (2011). Reauthorizing ESEA: Making research relevant. Retrieved from http://www.air.org/sites/default/files/downloads/report/0669_PG_SchoolTurnaround_Online_d41_0.pdf

Allee, V. with Schwabe, O. (2011). Value networks and the true nature of collaboration, digital edition. Retrieved from: http://www.valuenetworksandcollaboration.com/home.html

Allee, V. (2008). Value network analysis and value conversion of tangible and intangible assets. Journal of Intellectual Capital, 9 (1), p. 5-24.

American Psychological Association Presidential Task Force on Educational Disparities. (2012). Ethnic and racial disparities in education: Psychology's contributions to understanding and reducing disparities. Retrieved from https://www.apa.org/ed/resources/racial-disparities.pdf

Amos, J. (2008). Dropouts, diplomas, and dollars: US high schools and the nation's economy. The Alliance for Excellent Education. Retrieved from http://all4ed.org/reports-factsheets/dropouts-diplomas-and-dollars-u-s-high-schools-and-the-nations-economy/

Argote, L. (2012). Organizational learning: Creating, retaining and transferring knowledge. New York: Springer.

Arne Duncan Biography. (2015). Arne Duncan, U.S. secretary of education—biography. U. S. Department of Education Website. Retrieved from: http://www2.ed.gov/news/staff/bios/duncan.html

Atkinson, P. & Hammersley, M. (2007). Ethnography: Principles in practice, 3rd ed. New York: Routledge.

Auguste, B., Kihn, P., and Miller, P. (2010). Closing the talent gap: Attracting and retaining top third graduates to careers in teaching. McKinsey & Company. Retrieved from http://mckinseyonsociety.com/closing-the-talent-gap/

Becker, G. S. (2002). 'The age of human capital'. Education in the twenty-first century. Retrieved from: http://economics.dlut.edu.cn/uploadfiles/20081106200614853.pdf

Becker, G. S. (2008). Human capital. The Concise Encyclopedia of Economics. Library of Economics and Liberty. Retrieved from: http://www.econlib.org/library/Enc/HumanCapital.html

Beesley, A. D., DiFuccia, M., and Gulemetova, M. (2015). Social return on investment (SROI) approaches to program evaluation: Uses, benefits, and limitations. [Conference Proceeding]. The American Evaluation Association Conference. Chicago, IL.

Berkman, N. D., DeWalt, D. A., Pignone, M. P., Sheridan, S. L., Lohr, K. N., Lux, L., Sutton, S. F., Swinson, T. and Bonito, A. J. (2004). Literacy and health outcomes. Evidence Report/Technology Assessment, 87. Retrieved from http://archive.ahrq.gov/downloads/pub/evidence/pdf/literacy/literacy.pdf

Black, P. (2004). Working inside the black box: Assessment for learning in the classroom. Granada Learning.

Blaug, M. (1966). Literacy and economic development. The School Review, 393-418.

Bloom, M. R., Burrows, M., LaFleur, B., and Squires, R. (No Date). Conference briefing: The economic benefits of improving literacy skills in the workplace. Retrieved from http://www.nald.ca/library/research/economic/economic.pdf

Brown, A. A. (2012). Turnaround schools: Practices used by nationally recognized principals to improve student achievement in high poverty schools (Doctoral dissertation, THE UNIVERSITY OF MEMPHIS).

Bolman, L. G. and Deal, T. E. (2003). Reframing organizations: Artistry, choice, and leadership, third ed. San Francisco: Jossey-Bass.

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. Educational Researcher, 33 (3), pp. 3-15.

Card, D. (1999). The causal effect of education on earnings. Handbook of labor economics, 3, 1801-1863.

Caruso, D. R., & Salovey, P. (2004). The emotionally intelligent manager: How to develop and use the four key emotional skills of leadership. John Wiley & Sons.

Catholic Charities Maine Refugee and Immigration Services [website]. (2015). Viewed at http://www.ccmaine.org/refugee-immigration-services/faqs

Checci, D. (2006). The economics of education. Cambridge: Cambridge University Press.

Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school a cross-subject analysis with student fixed effects. Journal of Human Resources, 45(3), 655-681.

Cohen, M. D., March, J. G., & Olsen, J. P. (1972). A garbage can model of organizational choice. Administrative science quarterly, 1-25.

Conley, S. and Odden, A. (1995). Linking teacher compensation to teacher career development. Educational Evaluation and Policy Analysis, 17(2), 219-237.

Counsel of Great City Schools. (2015). School improvement grants: Progress report from America's great city schools. Retrieved from: http://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/87/SIG%20Report%202015.pdf

Creswell, J. W. (2015). A concise introduction to mixed methods research. Thousand Oaks, CA: SAGE Publications.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. Theory into practice, 39(3), 124-130.

Cucchiara, M. B., Rooney, E., & Robertson-Kraft, C. (2015). "I've never seen people work so hard!" Teachers' working conditions in the early stages of school turnaround. Urban Education, 50(3), 259-287.

Culpepper, S. A. (2014). The reliability of linear gain scores as measures of student growth at the classroom level in the presence of measurement bias and student tracking. Applied Psychological Measurement, 38(7), 503-517.

Darling-Hammond, L. and McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. The Phi Delta Kappan, 76 (8), pp. 597-604.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. Journal of Educational Change, 12(2), 147-158.

Dalziel, K. M., Halliday, D., and Segal, L. (2015). Assessment of the cost–benefit literature on early childhood education for vulnerable children. SAGE Open,5(1), 2158244015571637.

Deal, T. and Kennedy, A. (2000). Corporate cultures: The rites and rituals of corporate life. New York: Perseus Books.

Dedoose Version 6.1.18, web application for managing, analyzing, and presenting qualitative and mixed method research data (2015). Los Angeles, CA: SocioCultural Research Consultants, LLC (www.dedoose.com).

Dee, T. (2012). School turnarounds: Evidence from the 2009 stimulus (No. w17990). National Bureau of Economic Research.

DeWalt, K. M. and Dewalt, B. R. (2011). Participant observation: A guide for fieldworkers. Lanham, MD: Altamira Press.

Dodman, S. (2014). A vivid illustration of leadership: Principal's actions propel struggling school's turnaround. JSD: The Learning Forward Journal, 35 (1), p. 56-62.

Drever, E. (1995). Using semi-structured interviews in small-scale research. A teacher's guide. Edinburgh: Scottish Council for Research in Education.

DuFour, R., & Eaker, R. (1998). Professional learning communities at work: Best practices for enhancing student achievement. Bloomington, IN: National Educational Service.

DuFour, R., DuFour, R., & Eaker, R. (2008). Revisiting professional learning communities at work (pp. 13-167). Solution Tree, Llc.

DuFour, R., & Marzano, R. J. (2011). Leaders of Learning: How District, School, and Classroom Leaders Improve Student Achievement. Bloomington, IN: Solution Tree.

Duke, D. L. (2015). Leadership for low-performing schools: A step-by-step guide to the school turnaround process. Lantham, MD: Rowman & Littlefield.

Eberle, T. S. and Maeder, C. (2011). Organizational ethnography. In Silverman, D. (ed.). Qualitative Research: Issues of Theory, Method, and Practice, 3rd ed. Thousand Oaks, CA: Sage.

Ed.gov. (2014). Expansive Survey of America's Public Schools Reveals Troubling Racial Disparities: Lack of Access to Pre-School, Greater Suspensions Cited. Retrieved from http://www.ed.gov/news/press-releases/expansive-survey-americas-public-schools-reveals-troubling-racial-disparities

Elmore, R. F. (2002). Hard questions about practice. Educational Leadership,59(8), 22-25.

Elmore, R. (2008). Leadership as the practice of improvement. Improving school leadership, 2, 37-67.

Emerson, R. M., Fretz, R. I., and Shaw, L.L. (1995). Writing ethnographic fieldnotes. Chicago: University of Chicago Press.

Erikson, F. (1984). What makes school ethnography "ethnographic"? Anthropology and Education Quarterly (15) 1, pp. 51-66.

Erickson, F. (1987). Conceptions of school culture: An overview. Educational Administration Quarterly, 23(4), 11-24.

Eisenhart, M. A., Shrum, J. L., Harding, J. R., & Cuthbert, A. M. (1988). Teacher Beliefs Definitions, Findings, and Directions. Educational Policy, 2(1), 51-70.

European Union Report of High Level Group of Experts on Literacy. (2012). Final Report. Retrieved from http://ec.europa.eu/education/library/reports/literacy_en.pdf

Fang, Z. (1996). A review of research on teacher beliefs and practices. Educational research, 38(1), 47-65.

Federal Register. (2010). Federal register, 75 (208). Retrieved from http://www.gpo.gov/fdsys/pkg/FR-2010-10-28/pdf/2010-27313.pdf

Ferris, K. (2012). Human capital in turnaround schools. School Administrator, 69(7), 36-39.

Ferguson, R. F. (2012). Can student surveys measure teaching quality? Phi Delta Kappan, 94(3), p. 24-28.

Fielding, N. G. (2012). Triangulation and Mixed Methods Designs Data Integration With New Research Technologies. Journal of Mixed Methods Research, 6(2), 124-136.

Firestone, W. A. (1994). Redesigning teacher salary systems for educational reform. American Educational Research Journal, 31(3), 549-574.

Fogerty, R. and Pete, B. (2010). Professional learning 101: A syllabus of seven protocols. Phi Delta Kappan, 91 (4), pp. 32-34.Harris, A. (2010). Improving schools in challenge contexts. In Lieberman, A., Fullan, M., & Hopkins, D. (Eds.).Second international handbook of educational change (Vol. 23, pp. 611-629). Dordrecht: Springer.

Folger, J. (2016). What factors go into calculating social return on investment (SROI)? Investopedia [website]. Retrieved from http://www.investopedia.com/ask/answers/070314/what-factors-go-calculating-social-return-investment-sroi.asp

Frank, C. (1999). Ethnographic eyes: A teacher's guide to classroom observation. Portsmouth, NH: Heinemann.

Galluci, C., Van Lare, M. D., Yoon, I. H., and Boatright, B. (2010). Instructional coaching: Building theory about the role and organizational support for professional learning. American Educational Research Journal, 47 (4), pp. 919-963.

Geertz, C. (1973). The interpretation of cultures: Selected essays. New York: Basic Books.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., and Yoon, K. S. (2001). What Makes Professional Development Effective? Results From a National Sample of Teachers. American Educational Research Journal, 38 (4), 915-945.

Gering, S. (2005). Making a reform the work of the district: Lessons from Kansas City, Kansas. Voices in Urban Education, 9.

Goleman, D. (2003). What makes a leader? In Porter, L. W., Angle, H. L, and Allen, R. W. (Eds.). Organizational Influence Processes. New York: ME Sharpe, pp. 229-241.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. American Educational Research Journal, 37(2), 479-507.

Goddard, R. D. (2001). Collective efficacy: A neglected construct in the study of schools and student achievement. Journal of educational psychology, 93(3), 467.

Gordon, T., Holland, J. and Lahelma, E. (2001). Ethnographic research in educational settings. In Atkinson, P., Coffey, A., Delamont, S., Lofland, J., and Lofland, L. (Eds.). Handbook of Ethnography. Thousand Oaks, CA: Sage.

Guskey, T. R., and Yoon, K. S. (2009). What works in professional development? The Phi Kappa Deltan, 90 (7), pp. 495-500.

Hahn, R. A. (1996). Sickness and healing: An anthropological perspective. Yale University Press.

Hammersly, M. and Atkinson, P. (2007). Ethnography: Principles and practice. New York: Routledge.

Hansen, M. (2012). Key issues in empirically identifying chronically low-performing and turnaround schools. Journal of Education for Students Placed at Risk (JESPAR), 17(1-2), 55-69.

Hanushek, E. A., and Rivkin, S. G. (2010). Generalizations about using value-added measures of teacher quality. The American Economic Review, 267-271.

Hanushek, E. A., and Woessmann, L. (2012). Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation. Journal of Economic Growth, 17(4), 267-321.

Hargreaves, A. (1997). Cultures of teaching and educational change. In International handbook of teachers and teaching (pp. 1297-1319). Springer Netherlands.

Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. Teaching and teacher education, 6(3), 227-241.

Harris, A. (2010). Improving schools in challenging contexts. In Hargreaves, A., Lieberman, A., Fullan, M., & Hopkins, D. (Eds.) Second international handbook of educational change (Vol. 23). Springer Science & Business Media.

Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. Journal of public economics, 95(7), 798-812.

Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. Science, 312(5782), 1900-1902.

Heckman, J. J., and Masterov, D. V. (2007). The productivity argument for investing in young children. Applied Economic Perspectives and Policy, 29(3), 446-493.

Heinemann [website]. (2015). Units of study order form. Retrieved from http://www.heinemann.com/unitsofstudy/assets/UOS_OrderForm.pdf

Herman, R. (2012). Scaling school turnaround. Journal of Education for Students Placed at Risk (JESPAR), 17(1-2), 25-33.

Herman, R. and Huberman, M. (2012). Differences in the policies, programs, and practices (PPPs) and combination of PPPs across turnaround, moderately improving, and not improving schools. Paper presented at Society for Research on Educational Effectiveness (SREE) Conference: Effective Partnerships: Linking Practice and Research, Washington, DC.

Hernandez, D. J. (2011). Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation. Annie E. Casey Foundation.

Hochbein, C. (2012). Relegation and reversion: Longitudinal analysis of school turnaround and decline. Journal of Education for Students Placed at Risk (JESPAR), 17(1-2), 92-107.

Hout, M. (2012). Social and economic returns to college education in the United States. Annual Review of Sociology, 38, 379-400.

Jeffrey, B., & Troman, G. (2004). Time for ethnography. British educational research journal, 30(4), 535-548.

Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. Teachers College Record, 114(10), 1-39.

Knight, J. (2009). Coaching: The key to translating research into practices lies in continuous, job-embedded learning with ongoing support. Journal of Staff Development, 30 (1), pp. 18-22.

Konig, S. (2012). Details on Riverton's skyrocketing test scores. Bangor Daily News [website]. Retrieved from http://sethkoenig.bangordailynews.com/2012/03/02/school/details-on-riverton-elementary-schools-skyrocketing-test-scores/

Kotter, J. P. (1995). Leading change: Why transformation efforts fail. Harvard business review, 73(2), 59-67.

Kutash, J., Nico, E., Gorin, E., Rahmutullah, S., and Tallant, K. (2010). The school turnaround fieldguide. FSG Social Impact Advisors. Retrieved from http://www.wallacefoundation.org/knowledge-center/school-leadership/district-policy-and-practice/Documents/The-School-Turnaround-Field-Guide.pdf

Lareau, A. (2011). Unequal childhoods: Class, race, and family life, 2cd ed. Berkley, CA: University of California Press.

Lave, J., and Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge University Press.

Lawrence, R. B. (2015). Promoting teacher professionalism: Lessons learned from Portland's professional learning based salary schedule. American Journal of Education Forum. Retrieved from http://www.ajeforum.com/promoting-teacher-professionalism-lessons-learned-from-portlands-professional-learning-based-salary-schedule-by-rachael-b-lawrence/

Learning Forward (2011). Standards for professional learning: Quick reference. Retrieved from http://www.learningforward.org/docs/pdf/standardsreferenceguide.pdf?sfvrsn=0

LeCompte, M. D. and Schensul, J. J. (2010). Designing and conducting ethnographic research (Vol. 1). Lanham, MD: Rowman Altamira.

Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). Return on investment: Evidence-based options to improve statewide outcomes. Olympia: Washington State Institute for Public Policy.

Leithwood, K. A. and Strauss, T. I. I. U. (2008). Turnaround schools and the leadership they require. Toronto, ON: Canadian Education Association.

Leithwood, K. A. and Strauss, T. I. I. U. (2009). Turnaround schools: Leadership lessons. Education Canada, 49(2), 26-29.

Levin, H. M. (1983). Cost-effectiveness: A primer. Smith, N. L. (Ed.) New Perspectives in Evaluation. Beverly Hills, CA: Sage.

Levin, H. M. and McEwan, P. J. (2001). Cost-effectiveness analysis: Methods and applications. Thousand Oaks, CA: Sage.

Lincoln, Y. S. and Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.

Literacy Center. (2014). Why literacy matters [website]. Retrieved from http://theliteracycenter.org/about/why-literacy-matters/

Lochner, L. and Moretti, E. (2004). The effect of education on crime: Evidence from prison inmates, arrests and self-reports. The American Economic Review, 94, (1), pp. 155-89.

Louise, K. S. (2010). Better schools through better knowledge? New understanding, new uncertainty. In Lieberman, A., Fullan, M., & Hopkins, D. (Eds.). Second international handbook of educational change (Vol. 23, pp. 611-629). Dordrecht: Springer.

Lucas, S. R. (2014). Beyond the existence proof: ontological conditions, epistemological implications, and in-depth interview research. Quality & Quantity, 48(1), 387-408.

Lynch, R. G. (2004). Exceptional returns: Economic, fiscal, and social benefits of investment in early childhood development. Washington, DC: EPI Books.

Maine Department of Education [Website]. (2015). School improvement grants. Retrieved from http://www.maine.gov/doe/sig/

Maine Department of Education [Website]. (2015). Per-pupil operating costs.

Maine Department of Education Data Warehouse [website]. (2016). Accessed at http://dw.education.maine.gov/DirectoryManager/WEB/Maine_Report/NECAPO verallSummaryDTViewer.aspx

Maine School Improvement Grant Application. (2009). US Department of Education Website. Retrieved from http://www2.ed.gov/programs/sif/summary/meapp.pdf

March, J. G. and Olsen, J. P. (1975). The uncertainty of the past: Organizational learning under ambiguity. European Journal of Political Research, 3 (1975), pp. 147-171.

Marripodi, M. and Beard, O. (2013). A powerful partnership: Principal and external provider lead the turnaround at a low performing school. JSD: The Learning Forward Journal, 34(2), pp. 50-54.

Marshall, C. and Rossman, G. B. (2011). Designing qualitative research, 5th edition. Thousand Oaks, CA: Sage.

Marshall, C. and Rossman, G. B. (2015). Designing qualitative research, 6th ed. Thousand Oaks, CA: Sage.

Martin, W. M., & Lomperis, A. E. (2002). Determining the cost benefit, the return on investment, and the intangible impacts of language programs for development. TESOL Quarterly, 36(3), 399-429.

Maxwell, J. A. (2005). Qualitative research design: An interactive approach, 2nd ed. Thousand Oaks, CA: Sage.

May, J. J. and Sanders, E. T. W. (2013). Beyond standardized test scores: An examination of leadership and climate as leading indicators of future success in the transformation of turnaround schools. Journal of Urban Learning, Teaching, and Research, 9, p. 42-54.

McCrea, N. (2015). 5 years later: First schools dubbed 'persistently lowest-achieving' showing progress. Bangor Daily News. Retrieved from http://bangordailynews.com/2015/04/11/news/state/5-years-later-first-schools-dubbed-persistently-lowest-achieving-showing-progress/

McDonald, S. (2005). Studying actions in context: A qualitative shadowing method for organizational research. Qualitative Researcher, 5(4), 455-473.

McLendon, L., Jones, D., and Rosin, M. (2011). The return on investment (ROI) from adult education and training. Retrieved from http://www.mcgraw-hillresearchfoundation.org/wp-content/uploads/the-return-on-investment-from-adult-education-and-training.pdf

Mette, I. (2014). Turnaround reform efforts in a rural context: How community and culture impart change. Rural Educator, 35(3), 12.

Millar, R., and Hall, K. (2013). Social return on investment (SROI) and performance measurement: The opportunities and barriers for social enterprises in health and social care. Public Management Review, 15(6), 923-941.

Moore Johnson, S. J. (2012). Having it both ways: Building the capacity of individual teachers and their schools. Harvard Educational Review, 82(1), pp. 107-122.

Mowday, R. T. (1996). Equity theory predictions of behavior in organizations. In Ott, J. S. (Ed.). Classic Readings in Organizational Behavior, 2cd Ed. Orlando, FL: Harcourt Brace College Publishers, pp. 94-102.

Muijs, D., & Reynolds, D. (2002). Teachers' beliefs and behaviors: What really matters?. Journal of Classroom Interaction.

Murnane, R. J. (2013). US high school graduation rates: Patterns and explanations (No. w18701). National Bureau of Economic Research.

Myers, C., Lindsay, J., Condon, C., & Wan, Y. (2012). A statistical approach to identifying schools demonstrating substantial improvement in student learning. Journal of Education for Students Placed at Risk (JESPAR), 17(1-2), 70-91.

NEA.org. (2014). Students Affected by Achievement Gaps. http://www.nea.org/home/20380.htm

New Zealand Treasury. (2015). Guide to social cost benefit analysis. Viewed at http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide

Northwest Evaluation Association (NWEA) [website]. (2015). Viewed at: https://www.nwea.org/assessments/map/

Ogawa, R. T., and Bossert, S. T. (1995). Leadership as an organizational quality. Educational Administration Quarterly, 31(2), 224-243.

Oreopolous, P.; and Salvanes, K (2009). How large are returns to schooling? Hint: money isn't everything." National Bureau of Economic Research Working Paper 15339.

Peck, C., and Reitzug, U. C. (2014). School turnaround fever: The paradoxes of a historical practice promoted as a new reform. Urban Education, 49(1), 8-38.

Pelto, P. J. and Pelto, G. H. (1978). Anthropological research: The structure of inquiry. New York: Cambridge University Press.

Persaud, N. (2015). Simplifying cost analysis: Breaking it down to simple arithmetic [conference proceeding]. American Evaluation Association 2015 conference. Chicago, IL.

Peterson, D. S., Taylor, B. M., Burnham, B., and Schock, R. (2009). Reflective coaching conversations: A missing piece. The Reading Teacher, 62 (6), pp. 500-509.

Peurach, D. J. & Marx, G. E. (2010). Leading systemic improvement: Confronting complexity in turnaround schools. Journal of Cases in Educational Leadership, 13(3), 26-36.

Portland Education Association Teacher Contract. (2014). Retrieved from https://www.portlandschools.org/common/pages/DisplayFile.aspx?itemId=7303239

Portland Press Herald [website]. (2015). Maine schools: Free and reduced lunch. Retrieved from http://www.pressherald.com/interactive/search_maine_school_database_free_and_reduced_meals/

Portland Public Schools [website]. (2015). Viewed at https://www.portlandschools.org/schools

Portland Public Schools [website]. (2015). District fast facts. Retrieved from http://www.portlandschools.org/UserFiles/Servers/Server_1094153/File/District%20Information/FastFactsSpring2015.Revised020515.compressed.final.pdf

Portland Public Schools. (2015). FY 2016 budget. Retrieved from https://www.portlandschools.org/common/pages/DisplayFile.aspx?itemId=7805514

Portland Public Schools. (2014). Portland administrators association contract. Retrieved from https://www.portlandschools.org/common/pages/DisplayFile.aspx?itemId=7399678

Psacharopoulos, G. (1995). The profitability of investment in education: concepts and methods. Washington, DC: World Bank.

Psacharopoulos, G. and Patrinos, H. A. (2004). Returns to investment in education: A further update. Education Economics, 12(2), p. 111-134.

Rallis, S. F., Churchill, A. C., Lawrence, R. B., and Darling, J. (2011). Supporting professional learning: Impacts of the PLBSS in Portland Public Schools. Retrieved from http://portlandea.org/PDF/PLBSS%20final%20report%208.1.11.pdf.

Rallis, S. F., Keller, L.A, Lawrence, R. B., and Corbin, A. (unpublished study). Portland public school's PLBSS and student achievement.

Ravitch, D. (2001). Left back: A century of battles over school reform. Simon and Schuster.

Reyes, A., and Garcia, A. (2014). Turnaround policy and practice: A case study of turning around a failing school with English-language-learners. The Urban Review, 46(3), 349+. Retrieved from http://silk.library.umass.edu/login?url=http://go.galegroup.com.silk.library.umass.edu/ps/i.do?id=GALE%7CA381920625&v=2.1&u=mlin_w_umassamh&it=r&p=PROF&sw=w&asid=21472cdf8b09208222e91bd7221d3e1c

Reynolds, A. J., Temple, J. A., White, B. A., Ou, S. R., & Robertson, D. L. (2011). Age 26 cost–benefit analysis of the child-parent center early education program. Child development, 82(1), 379-404.

Rabionet, S. E. (2011). How I learned to design and conduct semi-structured interviews: An ongoing and continuous journey. Qualitative Report, 16(2), 563-566.

Rockoff, J. E. (2004), The impact of individual teachers on student achievement: Evidence from panel data, The American Economic Review, 94, 247-252.

Rogoff, B. (2003). The cultural nature of human development. New York: Oxford Press.

Rossman, G. B. and Rallis, S. F. (2003). Learning in the field: An introduction to qualitative research. Thousand Oaks, CA: Sage.

Rossman, G. B. and Rallis, S. F. (2011). Learning in the field: An introduction to qualitative research, 3rd ed. Thousand Oaks, CA: Sage.

Rossman, G. B. and Rallis S. F. (2016). An introduction to qualitative research: Learning in the field, 4th ed. Thousand Oaks, CA: Sage.

Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68.

Scholastic [website]. (2016). Guided reading leveling resource chart. Retrieved from http://teacher.scholastic.com/products/guidedreading/leveling_chart.htm

School Improvement Grant Application (FY 2010). Retrieved from https://www2.ed.gov/programs/sif/summary2010/meapp10.pdf.

Senge, P. M. (2014). The dance of change: The challenges to sustaining momentum in a learning organization. Random House LLC.

Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., & Dutton, J. (2012). Schools that learn (updated and revised): A fifth discipline fieldbook for educators, parents, and everyone who cares about education. Random House LLC.

Shea, J. and Liu, M. (2008). School improvement grants: Take 2, lessons learned from round one. Mass Insight Education. Retrieved from http://www.massinsight.org/publications/stg-resources/125/file/1/pubs/2010/12/07/STG_-_School_Improvement_Grants_Take_2_Dec_2010__.pdf

Shilder, L. (2009). The impact of time spent coaching for teacher efficacy on student achievement. Early Childhood Education Journal, 36(5), 453-460.

Shulman, L. S. (1997). Disciplined inquiry. In Jaeger, R. M. (ed.). Complimentary Methods for Research in Education, 2cd ed. Washington, DC: AERA.

Smarick, A. (2010). The turnaround fallacy. Education Next, 10 (1). Retrieved from http://educationnext.org/the-turnaround-fallacy/

Smarick, A. (2013). SIG and the lessons of history. Thomas B. Fordham Institute website. Retrieved from http://edexcellence.net/commentary/education-gadfly-daily/flypaper/sig-and-the-lessons-of-history

Social Ventures Consulting. (N. D.). Social return on investment: Lessons learned in Australia. Retrieved from http://socialventures.com.au/assets/SROI-Lessons-learned-in-Australia.pdf

Spindler, G. and Hammond, L. (2000). The use of anthropological methods in educational research: Two perspectives. In Brizula, B. M., Stewart, J. P., Carrillo, R. G., and Berger, J. G. (eds.). Acts of Inquiry in Qualitative Research. Cambridge, MA: Harvard Educational Review.

Struit, D. A. (2010). Are bad schools immortal? The scarcity of turnarounds and shutdowns in both charter and district sectors. Thomas B. Fordham Institute.

Struit, D. A. (2012). Turnaround and closure rates in the charter and district sectors. Journal of Education for Students Placed at Risk, 17(1-2), 40-54.

Sum, A. (1999). Literacy in the labor force: Results from the National Adult Literacy survey. Retrieved from http://nces.ed.gov/pubs99/1999470.pdf

Terry, D. (No Date). What's possible: Turning around America's lowest-achieving schools. Homeroom: The Official Blog of the U. S. Department of Education [website]. Retrieved from: http://www.ed.gov/blog/2010/03/whats-possible-turning-around-americas-lowest-achieving-schools/

Trujillo, T. (2015). Review of dramatic action, dramatic improvement. National Education Policy Center. Retrieved from : http://nepc.colorado.edu/files/ttr-turnaround-cap_0.pdf

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. Teaching and Teacher Education, 17 (7), 783-805.

Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. Review of Educational Research, 68(2), 202-248.

Tubin, D. (2015). Every teacher carries a leadership wand. International Journal of Leadership in Education, (ahead-of-print), 1-6.

Tyack, D. and Cuban, L. (1997). Tinkering toward utopia: A century of public school reform. Cambridge, MA: Harvard University Press.

Ujifusa, A. (2010). What, exactly, does school 'turnaround' mean? State EdWatch: Tracking Education Policy and Politics Across the 50 States [website]. Retrieved from: http://blogs.edweek.org/edweek/state_edwatch/2010/05/whats_the_definition_of_school_turnaround.html

U. S. Census [Website]. (2015). Portland (city) QuickFacts. Retrieved from http://quickfacts.census.gov/qfd/states/23/2360545.html

U. S. Department of Education. (2011). Maine SIG targeted monitoring review 5-2011. Retrieved from www.ed.gov

Van Fossen, S., Sticht, T. G., and Armstrong, W. B. (1991). Teach the mother and reach the child: results of the intergenerational literacy action research project of Wider Opportunities for Women. Wider Opportunities for Women, Incorporated.

Villavicencio, A. and Grayman, J. K. (2012). Learning from "turnaround" middle schools: Strategies for success. New York: Research Alliance for New York City Schools.

Volunteer Maine [website]. (2015). Viewed at http://volunteermaine.galaxydigital.com/volunteer/agency/display/riverton-elementary-school/?agency_id=18503

Wall Painting And Finishing Cost Calculator. (2016). Retrieved from http://www.homewyse.com/services/cost_to_paint_wall.html

Warren, S. (2014). Priority schools invited to apply for 1.7 million dollar SIG. Maine DOE Newsroom [website]. Retrieved from http://mainedoenews.net/2014/03/17/priority-schools-invited-to-apply-for-1-7-million-sig/

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge University Press.

Wood, W. C. (2010). Literacy and the entry-level workforce: The role of literacy and policy in labor market success. Employment Policies Institute. Retrieved from https://www.epionline.org/studies/r127/

Wood, H. M. (2012). Maine voices: Riverton school exemplifies improvement funds well spent. Portland Press Herald [website]. Retrieved from: http://www.pressherald.com/2012/03/17/riverton-school-exemplifies-improvement-funds-well-spent_2012-03-17/

Woodhall, M. (1987). Cost analysis in education. In Psacharopoulos, G. (Ed.). Economics of Education: Research and Studies. Oxford: Pergamon Press, pp. 393-399.

Woods, P. (1986). Inside schools: Ethnography in educational research. New York: Routledge.

Wright, P. M., and McMahan, G. C. (2011). Exploring human capital: putting 'human' back into strategic human resource management. Human Resource Management Journal, 21(2), 93-104.

Yatsko, S., Lake, R., Bowen, M., & Cooley Nelson, E. (2015). Federal school improvement grants (SIGs): How capacity and local conditions matter. Peabody Journal of Education, 90(1), 27-52.