Title
SCHOOL CAPACITY AND OVERLOAD REVIEW (S.C.O.R.E): MEASURING SCHOOL CAPACITY TO MAXIMIZE SCHOOL IMPROVEMENT

Author
Baham, Elizabeth

Publication Date
2014

Peer reviewed|Thesis/dissertation

SCHOOL CAPACITY AND OVERLOAD REVIEW (S.C.O.R.E): MEASURING SCHOOL CAPACITY TO MAXIMIZE SCHOOL IMPROVEMENT

By Elizabeth Baham

A dissertation submitted in partial satisfaction of the requirements for the degree of
Doctor of Education in the Graduate Division
of the University of California, Berkeley

Committee in charge:
Professor Tina Trujillo, Chair
Professor Heinrich Mintrop
Professor Michael Austin
Spring 2014

SCHOOL CAPACITY AND OVERLOAD REVIEW (S.C.O.R.E):

MEASURING SCHOOL CAPACITY TO MAXIMIZE SCHOOL IMPROVEMENT

By

Elizabeth Baham

Abstract

School Capacity and Overload Review (S.C.O.R.E)

Measuring School Capacity to Maximize School Improvement

By

Elizabeth Baham

Doctor of Education

University of California, Berkeley

Professor Tina Trujillo, Chair

Schools exist in a perpetual state of transformation and change. They modify and adjust their practices, systems and structures to meet the demands required of them and to impact the educational outcomes of students. The resulting demand on teachers' time, energy, skill, and knowledge is unmatched, contributing to what is referenced in the school reform literature as overloading. Overloaded schools operate beyond their existing capacity and fail to produce improved student outcomes. The School Capacity and Overload Review (SCORE) is a design dissertation aiming to capture the conditions of overload that may exist within schools.

The School Capacity and Overload Review (SCORE) was developed to assist school leaders in identifying the presence of overload in their schools, and importantly, to ascertain if fundamental aspects of human capital —teachers' time, personal energy, and ability to acquire and capitalize on new knowledge and skills —have been compromised. The findings of the SCORE may help uncover school improvement overload, or prevent it from happening in the future. This design study has an action research orientation with two primary research elements: assessment of the design impact and investigation of the design process.

DEDICATIONS AND ACKNOWLEDGMENTS

The completion of this dissertation has been a long, trying, challenging yet ultimately rewarding journey. These past four years have tested the limits of what I considered to be possible, but now that I am here, I wouldn't trade anything for this journey! I am a better person because of this experience, and know that were it not for the support, love and guidance of a few significant people, I would never have made it.

For my mother and my best friend, my number one cheerleader and my spiritual and emotional support system. I could never have completed this journey without your unfailing, unending and unconditional love. You made sure I had food to eat when you knew I was working against a deadline and was too busy to cook my own meals. You listened, without judgment, to my woes of dissertation overload. You encouraged me when the journey seemed impossible. Your love and support made this dissertation possible. You have always been there for me, and this is no different. It is yet another manifestation of the wonderful woman and mother you are. The completion of this degree is foremost for you!

For my brother, whose intellectual footsteps I dare to follow. You have set the bar high my friend, and for that, I thank you. What a wonderful example of a man, father, son and brother you are. I have a new respect and appreciation for the journey you have traveled, and without your trailblazing accomplishments, I would never have embarked on my own journey.

For my close friends, the girls I affectionately call my 'sisters'. You initially questioned my decision to go back to school, because after all, who would want to do that?! But as time progressed, you grew to understand how important this was to me. I thank you for your enduring friendship and for understanding and accepting that for the last year, I have largely been 'unavailable' for social gatherings and late night phone calls. We can now make up for lost time.

For my committee members, simply said, You Rock! Your scholarship and guidance made this journey a little easier to bear. You demystified the process and helped me navigate the many rights of passage. Your words of encouragement and praise sustained me at times when I questioned my own abilities. I cannot thank you enough! Yours is a thankless job, but I would like to take this opportunity to express my sincere gratitude and appreciations!

Lastly and significantly, I dedicate this dissertation to my grandmother, Honey. Words fail to express the love and admiration I have for her. She was a powerful force in my life and I think about her every day. She is not here to witness the completion of my journey, but nonetheless, she has been with me every step of the way. She came of age in an era where education was not a right afforded to all, but she endured and remained steadfast in her resolve to pursue her own academic pursuits. Among many things, she instilled in me the importance of education, and I know this accomplishment would make her very proud. This is for you Honey! I love you and I miss you!

TABLE OF CONTENTS

CHAPTER 1: DESIGN CHALLENGE AND THE PROFESSIONAL KNOWLEDGE BASE

INTRODUCTION

Each year, school systems take on an increasing number of well-intentioned reforms, from charter schools to small schools, from scripted curricular programs to high stakes testing. The waves of school reform continue to crash across the threshold of our schools, though with little evidence of impact or change. At any given point in time, most school systems are introducing or are planning to introduce a new initiative in an attempt to impact educational outcomes. Yet students' academic performance, by any number of measures, has proven to be relatively stagnant in the face of decades of reform efforts (Elmore 2004). There continues to be a high school graduation crisis and a pervasive racial, socio-economic, and linguistic, achievement gap. The persistent failure to deliver promised improvement has done little to lessen the fervor however. School leaders recognize that their schools cannot improve if things stay the same, and remain acutely aware that current processes and systems are failing to address students' needs. They remain hopeful that the implementation of reform initiatives will address the challenges associated with teaching and learning (Newmann, 2001).

Despite the lack of systemic change associated with prior reform efforts, schools continue to engage in reform and often simultaneously implement multiple reforms (Hess, 1999; Fullan, 1991). Fullan (2001) states that the major challenge schools face is no longer the absence of innovation or reform; rather it is the presence of too many disconnected, episodic, and superficially adorned projects. The resulting demand on teachers' time, skill, and energy is unparalleled, contributing to what is referenced in the school reform literature as overloading (Bryk, 2009; Newmann, Smith et al. 2001; Fullan, 1996). Overload, as defined by Fullan (1996), is the continuous stream of planned and unplanned changes such as the multiple [initiatives] and myriad policies [schools] must deal with all at once. Overloaded schools operate beyond their existing capacity, continue to implement initiatives in an arbitrary and uncoordinated manner, and expend resources (both human and fiscal) on initiatives that fail to yield desired results.

The School Capacity and Overload Review (SCORE) is a design dissertation aiming to capture the conditions of overload that may exist within schools. The SCORE can provide school leaders and their staff a means to better understand their context, specifically as it relates to human capital, and to make strategic decisions that are sensitive to those conditions. In this chapter, I present the design context, which outlines the need for a school-based audit tool; followed by the design challenge that guides the study and addresses an established need in a practical context. I conclude this chapter with a consultation of the professional knowledge base, which informed the design principles.

I. DESIGN CONTEXT: THE NEED FOR THE SCORE

The fundamental premise of school reform is the need for ongoing improvement of the achievement of all students. Through various reform measures introduced into the school context—emanating from a variety of sources (e.g., local, state and federal agencies)—schools seek to improve the educational outcomes for students. Characteristic of many school improvement processes, audits, surveys and other data tools are used to guide and inform decision-making.

Three recent and significant reform programs designed to help struggling schools illustrate the types of tools commonly used in school reform efforts. In 2001, California lawmakers created the School Assistance and Intervention Team (SAIT)[1]. SAIT, an intervention program designed to provide technical assistance and monitoring of underperforming schools, employed a district and school self-assessment survey analyzing school operations along nine Essential Program Components (EPCs). The SAIT's actions were guided by statute, and the focus of the SAIT process was limited to activities with direct impact on academic improvement in the areas of reading/language arts and mathematics. During the same time period, California lawmakers instituted the High Priority Schools Grant Program (HPSGP), focused on supporting schools in the bottom 10 percent of the Academic Performance Index (API) rankings [2]. Through a comprehensive needs assessment and the provision of $200 per student, schools focused on providing basic inputs such as textbooks, highly qualified teachers and other resources, programs and personnel they believed would improve student achievement [3]. Lastly, Program Improvement (PI), the formal designation for Title I-funded schools and LEAs that fail to make Adequate Yearly Progress (AYP) for two consecutive years[4], utilizes a needs assessment to bring about improvements in district and school operations in the areas of parent and community involvement, professional development and alignment of curriculum, instruction, and assessment, to name a few.[5] While focused on improving the conditions of teaching and learning, these programs and their data tools do not account for the capacity of school staff to effectively carry out the prescribed reform activities.

Although the examination of resources, programs and core instructional operations of schools are central to understanding the conditions of teaching and learning within schools, this information provides limited understanding of schools' capacity to reform. In contrast, the SCORE focuses on the school level and the individuals closest to reform implementation. It takes into account the time, skill, and energy teachers have available to carry out reform related activities and provides a more fulsome depiction of school capacity.

II. Design Challenge

It is within this context that I formulated my design challenge to develop a rigorous, diagnostic research-based audit, that will allow school leaders to identify the conditions associated with overload and determine their school's absorptive capacity. Specifically, the design challenge is to develop a diagnostic, research-based tool that is accurate in identifying overload, of practical use for school leaders and, clearly communicates the conditions of overload.

This design development study draws from research in the areas of school capacity and the impact of policy, contextual capacity, absorptive capacity, and teachers' work.

III. Consulting the Professional Knowledge Base

In consulting the professional knowledge base, I have identified selected areas of research that have informed my design development study. I have consulted topics covering school reform, school capacity, contextual capacity, and absorptive capacity. This literature provided a foundational understanding of the nature of school reform, and the capacities needed to successfully navigate the changes demanded of schools operating

in these environments. I conclude my review of the professional knowledge base with an examination of teachers' work in an effort to understand the technical and non-technical tasks, and time commitments required of teachers. This literature has provided a critical understanding of the ways in which teachers' work, and their workload and roles have shifted in school reform environments.

In this next section, I provide a distillation of the research that has provided a depth of understanding of the problem of practice and a preliminary conceptualization of overload and absorptive capacity. Taken together, these areas of study have allowed me to shift from a state of understanding and conceptualization to tool design and development.

School Capacity & the Impact of Policy Numerous studies indicate that both individual and collective capacities are essential components of meaningful educational reform (e.g., Malen & Rice, 2004; Hess, 1999; Corcoran & Goertz, 1995; Elmore, 2003). High stakes accountability systems and school reform efforts cannot achieve their stated goals unless schools have or acquire the capacity to meet prescribed performance standards (Malen & Rice, 2004). Many organizational theorists have conceptualized school capacity in a number of ways. As example, Corcoran and Goertz (1995) outlined three categories of school capacity: 1) the intellectual ability, knowledge and skills of teachers and other school staff; 2) the quality and quantity of resources available for teaching, including class size and instructional time; and, 3) the instructional culture of the school, including its social organization. The concept of Instructional Program Coherence was also identified as an element of school capacity. Honig and Hatch (2004), Newmann, Smith, Allensworth and Bryk (2001) and Youngs and King (2002) advance the concept as a prominent feature in schools' ability to improve. The Newmann et al. (2001) study defines instructional program coherence as a set of interrelated programs for students and staff that are guided by a common framework for curriculum, instruction, assessment and learning climate and are pursued over a sustained period of time. The authors also provide a conceptual framework for instructional program coherence which consists of three major components: 1) a common instructional framework; 2) staff working conditions that support the implementation of the framework; and 3) the allocation of resources, including funding, staffing assignments, materials, and time in support the framework. Additionally, Elmore (2003) notes the significance of internal accountability as a dimension of school capacity. Internal accountability (a term used synonymously with internal coherence) includes the shared norms, expectations, structures, and processes that determine the relationship between individual actions and collective results (Elmore, 2003). Schools with high internal accountability have greater coherence and shared views of what they are trying to accomplish, allowing them to focus resources where they are needed most (Elmore, 2003).

I am persuaded by the school capacity framework presented in the study of four elementary and middle schools' responses to two high stakes accountability initiatives (a district-directed reconstitution reform and a state and federal graduated sanctions reform) by Malen and Rice (2004). This study presents a framework that is advantageous for the development of the School Capacity and Overload Review because the school capacity literature indicates that the fiscal, human, social and cultural capital, as well as the informational resources made available to school personnel are core elements of school capacity. Malen and Rice also specify these same core elements of capacity. This case

study integrates and expounds upon much of the earlier research on capacity to formulate a two-dimensional construct of school capacity, the Resource Dimension and the Productivity Dimension. The resource dimension, crafted from the capacity framework established by Rice and Croninger (2001), reflects the resources schools possess and categorizes school capacity into five dimensions: a) fiscal capital – the quality and quantity of the resources available for teaching, including staffing levels, instructional time, and class sizes; b) human capital – skills, knowledge and dispositions of personnel; c) social capital – relationships, social networks, norms of trust; d) cultural capital – the extent to which school staff can: develop constructive relationships within and across diverse racial and ethnic groups and, mediate differences between students' home cultures and traditions and the institutional culture and traditions of the school; and e) informational resources-the opportunities for school leaders and teachers to acquire new ideas. Studies on school capacity have customarily focused on the resource dimension, often noting the availability of resources schools have at their disposal to engage in reform (Rice & Malen, 2010). Similarly, many school reform efforts aim to shore up schools' capacity through augmentation of some or all of these resources. For example, some of the options for remedying low achievement in schools failing to meet Adequate Yearly Progress (AYP) goals under the federal Program Improvement (PI) school reform initiative include providing schools with a new curriculum, extending the school year or day, or providing staff scientifically research based professional development[6]. Merely having resources does not mean that those resources will be used well however, and giving schools more money or a new curriculum isn't sufficient to enable them to meet ambitious goals for all students (Malen & Rice, 2004). The resource dimension provides an understanding of key resources schools need to improve, but does not singularly depict a comprehensive representation of a school's capacity.

In contrast, the productivity dimension moves beyond the resource or capacity 'inventory' approach by focusing on schools' ability to translate resources into expected outcomes, such as improved achievement for all students (Rice & Malen, 2010). The productivity dimension is defined Corcoran and Goertz as "the maximum amount of productivity that can be obtained from a given set of organizational arrangements" (1995, p.27). Simply put, the productivity dimension examines schools' ability to utilize the resources, or capacities, at their disposal to meet educational demands. When schools leverage their existing human, fiscal, and social capital, for example, to improve student outcomes, they have maximized their productivity. However, schools' productivity, or ability to leverage their resources for improvement, may be impacted by the very reforms introduced into their context. The capacities needed to realize one set of goals may not be the same as the capacities needed to meet another set of goals. For example, the resources, practices, competencies, and personnel needed to foster student improvement in basic skills standardized tests are not the same as those needed to support students' in meeting the demands of higher-order thinking tasks (Hatch, 2011). Hence, productivity may be compromised when there is misalignment between a school's existing capacities and the capacities required to effectively respond to a given reform (Malen & Rice, 2004).

Productivity may be further inhibited when the features of high stakes accountability policies undermine existing capacities. The school reform literature indicates that the multiple layers of policies placed upon schools may increase the

turbulence within schools, increase pressure upon school personnel, lower morale, and ultimately reduce their capacity to improve (Trujillo, 2012; Hatch, 2001; Mintrop, 2004). Drawing upon the theoretical literature regarding school capacity and case studies of the impact of high-stakes accountability policies on schools, Malen and Rice (2004) posit that high stakes accountability systems that employ reconstitution or graduated sanctions as a means for compelling schools to change, contribute to organizational dynamics in ways that reduce productivity and dilute capacity for meaningful school improvement. The reconstituted schools in their study experienced a significant depletion of human and social capital. As a result of the replacement of school staff and leadership, these schools were unable to develop the collegial networks, collaborative relationships, innovative programs, and comprehensive, coordinated approaches to school improvement that advocates of the reform had desired. Likewise, schools responded to the pressures of graduated sanctions by rapidly and indiscriminately adopting a wide array of new programs in a short amount of time, regardless of their feasibility or sensibility, leading to organizational freneticism and fragmentation. The weakening of capacity is also exemplified in the 2009 federal School Improvement Grant (SIG) program instituted to 'turn around' 5,000 of the nation's most persistently underperforming schools. One of the four policy options of the SIG program is School Turnaround; this option "…mandates that schools fire the principals and teachers and change schools' overall management" (Trujillo, 2012, p.1). Actions associated with these policies may produce destabilizing learning environments for vulnerable school populations including a fractured school climate, increased racial and socioeconomic segregation, organizational instability, and populating schools with novice teachers and school leaders, thus diminishing, rather than increasing school capacity (Trujillo, 2012; Darling-Hammond, 2007).

Contextual Capacity Citing Slavin (1998, p.130), Stoll (2009) writes, "for some schools implementing change is like trying to build a structure out of sand whereas in others the soil is fertile and the seed . . . only needs time, nurturing and protection." Schools built upon a foundation of sand are deemed 'low capacity', and require substantial investments in one or all of the aforementioned capacities; conversely, schools rooted in fertile soil require few investments or augmentations to enable students to meet performance standards and are regarded as 'high capacity' schools (Hatch, 2001; Hatch, 2011). For low capacity schools, the provision of additional resources alone does not translate into increased capacity (Hatch 2002; F. M. Hess 1999; Newman et al. 2000). Low capacity schools or high poverty urban schools, serving large concentrations of non-White, linguistically diverse students are frequently engaged with high-stakes reform policies that research indicates lead to destabilized school environments, and paradoxically, create or aggravate problems they aim to solve (Darling-Hammond, 2007). Low capacity schools in disadvantaged contexts have had a particular challenge responding to these reforms. Research has shown that these schools in particular, are significantly more likely to be identified as ''failing'' under No Child Left Behind (NCLB) and are less likely to exit improvement status, even under growth models (Holme & Rangel, 2012). The inequitable distribution of social, human, fiscal, and cultural capital in these schools undermines capacity and capacity-building efforts, making reform increasingly challenging. These schools are funded at levels substantially below those of neighboring suburban schools, and the policies associated with school funding, resource allocation, and tracking leave students with fewer and lower-quality

books, and curricular materials, and less access to enrichment activities such as music and art; significantly larger class sizes; and less qualified and experienced teachers (Kozol, 1991; Darling-Hammond & Post, 2000). The fact that the least-qualified teachers typically end up teaching the least-advantaged students is particularly problematic. Studies have found that the difference in teacher quality may represent the single most important school resource differential between minority and white children and that it explains at least as much of the variance in student achievement as socioeconomic status. In fact, disparate educational outcomes for low income and minority children are much more a function of their unequal access to key educational resources, including skilled teachers, strong leaders, and quality curriculum, than they are a function of race or class (Darling-Hammond & Post, 2000).

The discussion of improvement and reform therefore means something different to schools depending on their within school inputs and their out of school inputs (context). This is particularly true of low-performing, low capacity schools serving large percentages of students of color in low-income communities that do not have access to the same powerful network of relationships as others (Hatch, 2011). Noguera and Wells (2011) note that low capacity schools in high-poverty communities often exist in isolation from other community organizations (churches, social service agencies, recreation centers, etc.) either because school staff members lack relationships with these community-based organizations or because they perceive the neighborhood is hostile and potentially dangerous. In their longitudinal landmark study of 390 Chicago public elementary schools in which they sought ways to improve learning in urban schools, Bryk and colleagues (2009) identified five "necessary" and "sufficient" components which, when working together, can substantially drive student achievement. Prominent among these is the role of social capital in the improvement process. Bryk et al., writes, "The neighborhood served by a school may offer significant social resources, or it may create formidable barriers to sustained development" (2009, p. 194). Many urban children live in socially isolated areas in unstable home and community circumstances, including extreme poverty, high crime, homelessness, domestic violence, abuse and neglect; the challenges facing these students pose a barrier to those seeking to improve their educational outcomes (Bryk et al., 2009 Ch. 6; Oakes and Lipton, 2003 Ch.1). Findings from their study indicate that contextual differences in schools make a difference, and reform efforts that take a 'one size fit all' approach may do more harm than good. Capacity is a reflection of both the within-school inputs as well as the out-of-school inputs. In schools where the out-of-school inputs (what I refer to as 'contextual capacity') pose an impediment to school improvement, the ability to initiate change and leverage it for their own purposes just isn't there (Hatch, 2001).

Absorptive Capacity In a study of organizational change and the role of capacity in the change process, Carillo and Gaimon (2000) found that organizations should not invest in change until or unless they have acquired sufficient knowledge and capacity to weather the change process. However, organizations, including schools, tend to under-invest in the development of their absorptive capacity (Cohen and Levinthal, 1994). Absorptive capacity is what enables individuals and organizations to effectively acquire and utilize external as well as internal knowledge to reform practices and procedures, and improve their efficacy (Cohen and Levinthal, 1994).

Absorptive capacity is studied on the individual, group, organizational, and

national levels and has been defined by many organizational theorists. Cohen and Levinthal (1990) and Kim (1997) defined it as the capacity to learn and solve problems and as the individual or organization's ability to identify, assimilate, and exploit outside knowledge. It is, however, a reformulation of absorptive capacity, provided by Zahra and George (2002) that will serve as the operational definition for this proposal, and a lens through which the SCORE will be developed. In 2002, Zahra and George defined absorptive capacity as a set of routines and processes by which organizations acquire, assimilate, transform, and exploit new knowledge to improve organizational capability. Furthermore, Zahra and George (2002) have classified these stages of absorptive capacity into two distinct, chronological capacities relevant to organizational improvement: potential absorptive capacity, which consists of knowledge acquisition and assimilation; and realized absorptive capacity, which relates to the transformation and exploitation of the new knowledge.

Potential Absorptive Capacity

Knowledge acquisition is the initial component of the absorptive capacity construct. It is defined as the ability to recognize, value, and acquire external knowledge that is critical to an organization's operations (Lane and Lubatkin, 1998; Zahra and George, 2002). Applied to school improvement, knowledge acquisition is characterized by a school's ability to identify and acquire relevant information and knowledge critical to improving student achievement outcomes. In overloaded schools, the pressures upon school leaders to improve the conditions of teaching and learning, lead to the adoption of multiple initiatives in the hopes that the practices and knowledge associated with them will improve student outcomes (Newmann et al, 2001). Subsequently, schools are flooded with knowledge and information that may not be relevant or critical for school improvement.

Second, there is assimilation. Assimilation refers to an organization's ability to effectively absorb external knowledge. Assimilation capability relates to schools' routines and processes that allow them to analyze, process, interpret and understand the information associated with reform initiatives. The multiloading of activities and programs in overloaded schools prevents them from benefiting from the information associated with school improvement initiatives. The plethora of workshops, trainings and meetings associated with multiple reform activities don't allow teachers the time to support nor adopt mastery of the practices that may improve student learning (Newmann et al., 2001, Hess, 1999).

Overall, potential absorptive capacity enables schools to become receptive to acquiring and assimilating external knowledge which may be critical to improving their ability to improve teaching and learning (Zahra and George, 2002).

Realized Absorptive Capacity

Realized absorptive capacity consists of an organization's transformation capability. Applied to the school context, transformation capability can be defined as the ability to develop and refine instructional routines to facilitate the combining of existing knowledge and newly acquired and assimilated knowledge (Zahra and George, 2002). Zahra and George (2002) note that transformation can be achieved by adding or deleting knowledge, or interpreting existing knowledge in a different way. Additionally, realized absorptive capacity also pertains to schools' capacity to capitalize and exploit the new information, allowing them to apply the newly acquired knowledge to improve student

academic outcomes. Realized absorptive capacity, as summarized by Zahra and George (2002) is a function of the transformation and exploitation of the acquired and assimilated knowledge. In overloaded schools the pattern of perpetual loading of initiatives, and the stop and start nature with which initiatives are implemented, disrupts schools' ability to apply the newly acquired knowledge in ways in which it can substantially benefit.

Overloaded schools have, in effect, exceeded their absorptive capacity. They have compromised their ability to acquire, assimilate, transform and leverage external information and skills associated with reform initiatives, through the multiloading, stop-and-start nature of initiative implementation and incoherence of reform initiatives. Subsequently, efforts to reform schools stall, and improved student outcomes remain unrealized.

The Economy of Teachers' Work

Understanding the role of school resources and capacities in school improvement efforts provides a comprehensive foundation for the development of the School Capacity and Overload Review (SCORE). In particular, the impact reforms have upon the human capital (skill, knowledge, and dispositions) is particularly germane in understanding and determining schools' absorptive capacity. Complimentary to this, and essential for development of the SCORE, is the understanding of the economy of teachers' work. Teachers' work has been examined by many scholars through a variety of lenses and for a variety of purposes. Some have focused on teacher isolation and the 'egg crate schools', where teachers conduct their work in relative isolation, while others have examined the influence of reform and high stakes accountability systems on teachers' work, workloads, habits and practices (Lortie, 1975; Rosenholtz, 1991; O'Day, 2002; Valli and Buese, 2007). It is the latter lens that will inform the development of the SCORE.

In order to appreciate the boundary of where teachers' work ends and overload begins, there must exist an understanding of what constitutes teachers' 'normal' day-to-day work, including the time commitments, activities, professional obligations and duties.

In light of discussions between city and school officials about whether or not to extend the school day to improve student educational outcomes in the Chicago Public Schools (CPS), researchers at the Labor Education Program of the School of Labor and Employment Relations at the University of Illinois conducted surveys of 983 CPS teachers during the winter of 2011-12. The results of this study provide a profile of a teacher's workload and time allocation during a typical workday. Notable among the findings are the varied teaching and non-teaching related tasks teachers engage in on a daily basis. Inclusive of the teaching activities are: actual instruction (45.5%), assessing students' work (6%), administering curriculum subject assessments (4.1%), planning teaching lessons (4.9%), and providing extra help to students (3.4%). Included among the non-teaching related activities are: behavioral management (8.7%), hall duty, cafeteria duty or other assigned non-teaching tasks (1.5%), communicating with parents (2.4%), and sorting data (7.9%). Overall, CPS teachers spend an average 64% of their time working on tasks related to teaching and 35% of their time working on non-teaching related tasks. In a typical week, CPS teachers worked an average of nearly 54 hours. However, when weekend work is included, the total allocation of time dedicated by teachers to their job increases to almost 58 hours per week.

A similar study of teachers' work was posted in an online article on the website experience.com, entitled *What Teachers Do Every Day.* This report, which utilizes teachers' self-reported data about how they spend their time at work, notes that public school teachers spend their time engaged in the following set of activities: classroom preparation (30%), teaching in the classroom (25%), grading student work (20%), administration (15%); personal attention to students (4%), coaching/extracurricular activities (3%) and, parent interaction (3%)[7]. Taken together, these reports depict the demanding and varied nature of teachers' 'normal' day-to-day work obligations. When layered with school reform related activities, the economy of teachers' work can lay the foundation for overload.

Teachers' Work and the Reform Environment

In addition to the time and task studies on what constitutes the core work of teachers, research conducted on the impact of school reform activities on teachers' work describes teachers as "working harder" or "differently" as a result of school reform efforts (O'Day, 2002; Valli and Buese, 2007). In a study of the impact of federal, state and local policies on the roles that elementary teachers are asked to assume inside and outside of the classroom, Valli and Buese assert, "…the rapid-fire, high stakes policy directives promote an environment in which teachers are asked to relate to their students differently, enact pedagogies that are often at odds with their vision of best practice and experience high levels of stress" (2007, p. 520). Not only are teachers asked to pay greater attention to the nuances of classroom details, they are spending more time outside the classroom learning, planning and justifying their actions to others (Bailey, 2000; Bruno, Ashby, Manzo, 2012). I am influenced by terminology used within the research to capture the shift in teachers' work in response to the demands of school reform policies and practices. Valli and Buese (2007) provide a framework to understand three important ways teachers' work has been altered and impacted by school reform efforts: 1) *role increase* – the number of tasks teachers are expected to perform increase as they are asked to do more things and with an increasing level of complexity from year to year; 2) *role expansion* – teachers' involvement in activities expands as they try to coordinate learning experiences within and across grade levels, with other teachers, specialists, or other district personnel; and, 3) *role intensification* – critics describe this as a process that occurs when "teachers are expected to respond to greater pressures and to comply with multiplying [reforms] under conditions that are at best stable and at worst deteriorating" (Hargreaves, 1992, p. 88). This framework provides the basis for measuring the amount of energy and skill required of teachers in pursuit of reform activities.

The tasks teachers perform are wide-ranging and varied, and are a major commitment of professional and personal time (Bruno et al., 2012). In addition to providing instruction, lesson planning, performing essential duties within the school, and managing student behavioral issues, teachers working in reform environments are asked to relate to students differently, learn new curriculum, and enact new and sometimes conflicting pedagogies (Valli and Buese, 2007). In effect, these teachers are working harder, yet the amount and intensity of their work remains unacknowledged (Hargreaves, 1992). Many school leaders at the district and school level are unaware of what constitutes the entirety of teachers' work and the pressures placed upon them in the reform environment. They remain naïve as to the impact that current practices associated with reform has upon teachers working within these contexts. In an effort to improve

their schools and exit local, state or federal sanctions, school administrators continue to engage in reform and remain unaware of the signs, symptoms and manifestation of overload in their schools and the absorptive capacity of their staffs. Hargreaves (1992) writes, "from their [administrators'] distant standpoints, they see the classroom not in its densely packed complexity, in its pressing immediacy, as the teacher does. Rather they see it from the point of view of the single change they are supporting and promoting…a change that will tend to stand out from all the other events and pressures of classroom life" (1992, p. 304).

In sum, the review of the literature provides a comprehensive understanding of the information and criteria needed to develop a diagnostic, research-based audit that will examine schools' relative states of overload. Specifically, the research on school capacity and absorptive capacity provides an understanding of the resources schools need to improve and some of the factors that may impede their ability to do so. The research on the economy of teachers' work creates the basis of an understanding of where teachers' work ends and overload begins. Together, these bodies of research will aid in the development of a tool that will provide a more contextualized set of recommendations for schools.

CHAPTER 2: THEORY OF ACTION

INTRODUCTION

Theories of action are conceptions of why a particular practice or policy ought to work; they provide a model or conceptualization that predicts how to move from a problematic state to a desirable state (Argyris & Schon, 1978). A theory of action is more open to change and reconsideration than, for example, a conceptual model that generates a firm hypotheses, however, it needs to be empirically testable in order to see whether the theory works or not or can be verified or falsified by evidence (Argyris & Schon, 1978). In this chapter I present the theory of action guiding the design of the SCORE (Table 2.1) and the problem of practice that necessitates its development. First, I will conduct a needs assessment to explain the conditions in schools relative to innovation churn, reform overload and lack of awareness of resources. Next, I describe my design challenge, theory of change and preconditions for implementation of the SCORE. Throughout I draw from research and practical experience to develop and support my theory of action.

Table 2.1: THEORY OF ACTION

PROBLEM OF PRACTICE	• Innovation churn; • Reform overload; • Lack of awareness; and, • Absorptive capacity.
DESIGN CHALLENGE	Develop a diagnostic, research-based tool that is: 1) accurate; 2) practical; and 3) clearly communicates the conditions of overload.
THEORY OF CHANGE & TOOL DEVELOPMENT	If I develop a tool that can accurately and efficiently communicate a diagnosis of overload, then school leaders may better understand the absorptive capacity of their school. See Table 2 for a detailed outline of tool development activities.
PRECONDITIONS FOR IMPLEMENTATION	• Development Site (School #1): o School leader and teachers willing to participate in the study, including semi-structured interviews, focus groups and pilot testing of the SCORE and debriefing of the SCORE as it pertains to accuracy, practicality of use and its ability to clearly communicate conditions of overload. o Reasonable assertion, verified through semi-structured interviews and focus groups of district administration, school principal and teacher leaders that the school is overloaded. • Authentication Site (School #2): o School leader and teachers willing to participate in the study, including semi-structured interviews, focus groups and implementation and debriefing of the SCORE as it pertains to accuracy, practicality of use and its ability to clearly communicate conditions of overload. o Uncertain and initially unconfirmed state of the school relative to overload.

I. Problem of Practice

A review of the school reform literature reveals several factors which may contribute to overload, the three most frequently referenced include: 1) the simultaneous implementation of multiple initiatives; 2) incoherence and misalignment of initiatives; and, 3) a lack of sustained commitment to any one instructional program or approach. An explanation of each is provided below.

Simultaneous Implementation of Multiple Initiatives

Fullan (1991) notes that schools work in contexts of multiple rather than singular [initiatives], having to manage, coordinate and integrate numerous changes (some self-initiated, some externally imposed) all at once. For example, in a 1998-99 survey of principals in the San Francisco Unified School District (SFUSD), 52% reported that their schools were involved with three or more initiatives or partnerships; 15% reported that they were implementing six or more different initiatives (Hatch, 2000). Additionally, surveys from three comparison school districts in California and Texas reflect that 63% were implementing three or more initiatives, with 27% implementing six or more. In one district, 18% of schools reported implementing nine or more initiatives simultaneously (Hatch, 2000). These findings are further illustrated in the example of the Oakland Unified School District (OUSD):

> Between 2005 and 2009, OUSD launched the Expect Success initiative intended to better prepare students for success in college and beyond. During this period, a typical OUSD elementary school was engaged in a menu of activities that included: English language arts (ELA) and math content coaching, the Writing Proficiency Project, standards-mapping in ELA, MOCHA (Museum of Children's Art) integrated with Open Court reading, core content pacing guides, violence prevention programs (e.g., Second Step), conflict resolution programs, Culturally Responsive Teaching training, Academic English Development (AED), and Professional Learning Communities (PLCs) (Williams 2007).

Associated with each initiative is a demand for new knowledge of curriculum, pedagogy, and organizational improvement at the school and system level; with simultaneous implementation of multiple initiatives, the demand for knowledge is unprecedented, resulting in a fragmented array of programs, emphases, and activities that don't allow teachers the time to master the practices that may improve student learning (Bryk, 2009; Newmann et al., 2001). In an analysis of elementary school improvement plans outlining multiple activities to improve instruction in core content areas, Levine and Leibert (1987) note that there is little or no consideration of the mental and physical demands placed upon teachers. Recent studies of school-level reform suggest that implementing some initiatives may be healthy, but too many may negatively affect school outcomes (Hess, 1999).

Incoherence and Misalignment of Initiatives

Advocates of systemic reform suggest that schools are more effective when reform activities are implemented in an integrated and coherent manner (Bryk, 2010; Hess, 1999). According to Newmann, King and Young (2001), coherence is a measure

of the extent to which a school is programmatically integrated with respect to the shared materials, tools, and instructional routines. Instructional program coherence is supported by the presence of three major conditions: 1) a common instructional framework guiding curriculum, instruction, assessment and learning; 2) staff working conditions supportive of the instructional framework; and 3) resource allocation such as time, materials, and staff assignments to advance the instructional framework (Newmann et al., 2001). Research has documented the effect of coherence and alignment on enhancing student learning. For example, in a study of elementary schools in Chicago, Bryk et al. (1993) found that schools implementing multiple initiatives with little coordination and little attention to strengthening the organizational core compared unfavorably to schools with greater focus and attention to alignment. Additionally, in a study of Kentucky school districts, Hess (1999) notes that schools implementing a wide range of initiatives had worse student outcomes than schools that engaged in no initiatives, and much worse outcomes than schools with a sustained commitment to a limited number of initiatives.

School improvement efforts however, are typically instituted in a frenzied fashion, detached from any clear strategy, centralized focus or framework (Hess, 1999). In their seminal essay on systemic reform, Smith & O'Day (1991) note that the school improvement process consists of numerous conflicting pressures that disperse and drain the already fragmented energies of school personnel. The plethora of workshops, trainings and meetings associated with the contrasting and competing reform activities don't allow teachers the time to support nor adopt mastery of the practices that may improve student learning, leaving staff with a sense of professional frustration, fatigue and decreased motivation (Newmann et al., 2001; Hess, 1999). The pressures and messages schools and teachers receive are disjointed and work at cross purposes, leading to fragmentation and division among school staff, and an inability to focus on the core practices and strategies that may improve student achievement (Fullan, 1996).

Lack of Sustained Commitment

Research on organizations and effective management asserts that when people are allowed to work together on integrated activities, they produce higher quality goods and services (Bruch and Menges 2010). Translated to a school context, a sustained commitment to initiatives allows teachers' work to be tied to a common purpose, providing them time to deepen their understanding, build knowledge and develop proficiency over an extended period of time. When given an opportunity to focus intensively on programs and activities central to their content area and instructional program, over a prolonged time period, teachers will have greater commitment and motivation to achieve school improvement goals, and make their work more meaningful (Newmann, Smith et al. 2001). Conversely, the stop and start nature of initiative implementation, and the lack of sustained commitment to reform activities, particularly damages school culture by discouraging cooperation and reducing motivation among teachers who have participated in and watched successive waves of educational reform come and go (Hess, 1999). The pattern of constant change and 'perpetual loading', endemic to overloaded schools, has made teachers cynical about the motives and competence of school leaders. As a result, teachers become reluctant to participate and engage in reform activities (Bruch & Menges, 2010; Hess, 1999).

Overall, there exists substantial evidence that the prevailing approach to school reform can have deleterious effects on the personnel, the culture, and the improvement efforts of schools seeking to remedy the conditions of teaching and learning. Multiple and competing activities, incoherence and misalignment, and the lack of sustained commitment to initiatives and programs, negatively impacts schools' ability to reform and contributes to overload.

II. DESIGN CHALLENGE

Meeting the design challenge necessitates the development of a tool that is effective in the following three measures: accuracy, practicality of use, and an ability to clearly communicate the conditions of overload that may exist within schools. Each of these measures is expanded upon below.

Accuracy. Diagnostic instruments are accurate when they measure what they purport to measure. Accuracy, as it pertains to this design development study, will be reflected in the ability of the SCORE to capture, in a comprehensive manner, the dimensions of overload and the resulting absorptive capacity. The phases of tool development (Table 2.1) include implementation, refinement, and adjustment at two school sites, with the input and feedback of school leaders and teachers to ensure accuracy.

To develop accuracy within the SCORE, teachers will respond to prompts about the time, demand for new knowledge and skill development, and personal energy/level of challenge they experience to complete activities that 1) are embedded in their day-to-day work (e.g., teaching core content and planning lessons), 2) enhance their ability to perform core instructional or student support related tasks (e.g., pursuing a credential or degree), and 3) central to fulfilling the requirements often found in school and classroom improvement initiatives (e.g., district or school-based professional development, trainings and workshops).

Working with information supplied by school staff, such as the specific time allocations of the aforementioned activities, and identifying perceived skill and energy levels, will lend to a more accurate depiction of the overload status of a school. Additionally, a feedback loop will be implemented after the SCORE's launch at the Development Site, to ascertain any holes or gaps in the larger categories or subcategories contained in the SCORE (Figure 2A).

Practicality of Use. Practicality of use is of paramount importance when designing a tool for school leaders to implement, and for teachers to take, particularly if they are working in an overloaded context. School leaders and teachers are not likely to use the SCORE if its implementation detracts from their responsibilities and places constraints on their time, workload and overall job demands. Additionally, the information gleaned from taking the SCORE must be worthwhile and meaningful, in order for it to be of practical use. Incorporated in the design process of the SCORE (Figure 1) is a feedback loop from school leaders about its practicality of use.

The SCORE is designed for use by school leaders and their staff, and as such, needs to be relatively easy for teachers to individually complete and arrive at a personal profile, and for the principal or his/her designee, to compile a summary sheet of all SCORE data, and arrive at a comprehensive understanding of the conditions of overload within their school. The Individual SCORE Sheet, used to tally teachers' point and time

totals in the areas of time, new skill and knowledge development and personal energy, will provide teachers information as to their time budgets, demand for new skill and knowledge, and personal energy and levels of challenge experienced. The My School SCORE Summary Sheet (Appendices VI -VII) will provide school leaders a means to disaggregate these components along a variety of dimensions, including: grade level, teacher experience, category and sub-category (e.g., regular duties - classroom instruction – reading/language arts), as well as to look at the SCORE in aggregation. Practicality of use is assessed during the feedback loops occurring at both the Development and Authentication Sites (Figure 1). School leaders will be asked at the conclusion of each site study how they might use the SCORE in the context of their work (e.g., priority setting and decision making), in what specific facets of their work it might be most informative and useful, as well as what recommendations they may have to improve upon its practicality of use.

Communicates Clearly. The ultimate goal of this study is to create a tool that diagnosis absorptive capacity and clearly communicates the conditions of overload to school leaders and their staff. Confirmation of the tool's ability to generate awareness will be achieved in the Authentication Site, where the tool will be implemented after refinement in the Development Site, and the results confirmed against data gathered in interviews and focus groups. Additionally, Authentication Site staff will provide feedback as to the clarity of results of their individual SCORE report. A final confirmation of the SCORE's ability to clearly communicate the conditions of overload, will occur through debrief conversations with the Authentication Site principal and staff, to assess the degree of clarity gained from the SCORE and their level of understanding about overload that may exist within their school.

III. THEORY OF CHANGE & TOOL DEVELOPMENT

A theory of change makes explicit the assumptions of how change is expected to occur within any particular context and in relation to a particular intervention[8]. It maps out which actors have to do what in order to achieve and sustain a vision of success, and identifies the major linkages between them. The theory of change underpinning the SCORE posits that: if I develop a tool that is accurate in identifying overload along the dimensions of time, new skill and knowledge requirements, and energy, that is of practical use to school leaders in their ability to make tactical decisions that take into account the conditions of overload, and clearly communicates a diagnosis relative to overload, then school leaders may better understand the absorptive capacity of their school.

IV. OUTCOMES

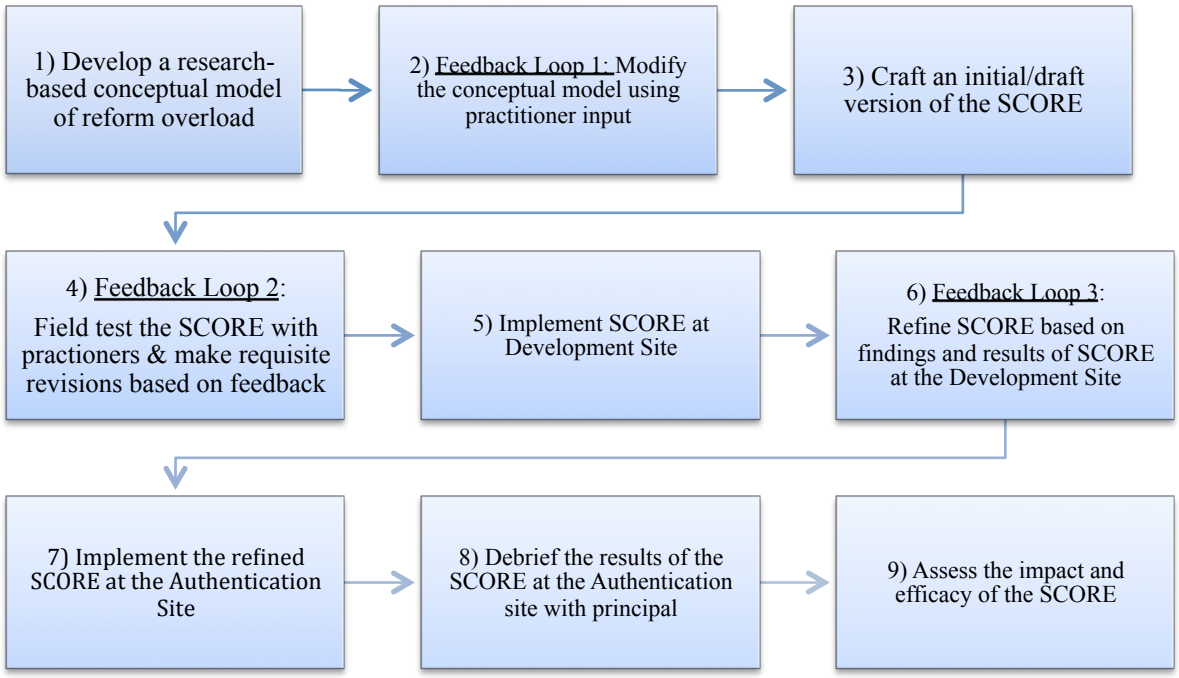
In today's educational context, most schools are expected to improve continuously. Improvement activities can be intensive in time, new skill and knowledge development, and personal energy. As teachers take on new commitments, new programs, new ways of communicating and organizing their instruction, they may not realize the resulting overload. The School Capacity and Overload Review (SCORE) is a brief survey designed to help teachers and principals find out what's on their plate with regard to the time, skill and demands of the tasks they are expected to carry out at this moment.

V. Phases of Tool Development – An Overview

The phases of tool development are deliberately designed to ensure that the conditions of accuracy, practicality of use and clarity of communication are met. Tool development begins with a research-based conceptual model of overload. The foundation for accuracy in tool development begins with leveraging the research on teachers' work and school reform, supplemented with practitioner input. Collectively, these resources provide the information needed for the draft version of the SCORE grounded in research and the practical realities of individuals working within the school reform space (see Figure 2A, phases 1 – 4). Accuracy is further tested in phases 6 and 8 of the tool development process, through practitioner feedback in the Development Site and verification of individual and collective SCORE results from teachers and the school principal respectively, in the Authentication Site. Next, practicality of use occurs through debrief conversations with teachers and principals at both study sites. In tool development phases 6 and 8, school staff and principals share their impressions of the SCORE content through focused on applicability to their work (e.g., whether or not all relevant work-related tasks were included), as well as, the amount of time it took for them to complete and tally their SCORE results. Lastly, the dimension of clarity of communication is measured in tool development phases 6 and 8, and is gauged upon practitioner feedback as to whether or not the Individual SCORE Sheet and the My School SCORE Summary Sheet (Appendices VI - VII) clearly depict areas of school programming and operation in which overload may exist.

A synopsis of tool development activities is provided in Figure 2A below. A more detailed examination of the stages of tool development activities may be found in Chapter 3 Research and Design Methodology (Table 3A).

Figure 2A: Tool Development – An Overview



In this chapter, I outlined the theories underpinning the theory of change and tool development of my design dissertation, and unpacked three central ideas upon which tool develop In the next chapter, I present the research design and methodology.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

INTRODUCTION

The School Capacity and Overload Review (SCORE) is a design dissertation aiming to capture the conditions of overload that may exist within schools. The SCORE is intended to be a diagnostic, research-based audit that will provide school leaders and their staffs a means to better understand their environment, as it relates to capacity, so that they can make strategic decisions sensitive to the conditions of their environment. This study represents the first step in the development of a tool that is ultimately intended to help principals and teachers identify what is on their plate with regard to the time, skill, and demands of the tasks they are expected to carry out. The findings of the SCORE may help uncover school improvement overload, or prevent it from happening in the future. This design study has an action research orientation with two primary research elements: assessment of the design impact and investigation of the design process.

For my dissertation I have chosen a design development study with an action research orientation. The development of the SCORE lends itself to design research in that it 1) identifies an educational challenge (reform overload); 2) contextualizes the study within an educational setting (urban public elementary schools); and 3) designs an intervention or remedy (the SCORE) to impact or better understand the identified challenge. Design studies are distinct in that they explicitly serve to develop an intervention for an identified problem. The goal, however, is not to implement complete interventions but to arrive at prototypes that increasingly meet the innovation purposes and requirements (van den Akker, 1999). The process of design research is often cyclical and follows phases of analysis, design evaluation, and revision until an acceptable balance between ideals and realization has been achieved (van den Akker, 1999). My design development study will follow this iterative process (Figure 1 and Table 2) to arrive at a tool that is accurate, feasible, and effective in communicating the conditions of overload.

Design development studies and action research methodology share similar characteristics, including: 1) a concern with developing practical knowledge to solve complex problems; 2) a research *in* action focus rather than research *about* action; and 3) a collaborative in nature (Coghlan & Brannick, 2007). Due to these overlapping and mutually reinforcing characteristics that closely mirror my design challenge, I have chosen to utilize an action research approach.

I. ACTION RESEARCH

Action research, as described by Gilmore, Krantz, and Ramirez (1986), purports to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Action research is a form of applied research that uses a scientific approach to study the resolution of important social or organizational issues together with those who experience these issues directly (Gilmore et al, 1986; Coghlan and Brannick, 2010). In action research, the researcher attempts to develop results or a solution that is of practical value while at the same time developing theoretical knowledge (Coghlan and Brannick, 2010). Put simply, action research is "learning by doing": a problem is identified, an intervention is designed to remedy the problem, efforts at remediation are evaluated, and if not satisfied, are tried again[9]. In addition to consulting the research and professional knowledge base, the

SCORE will be developed, refined, and informed through consultation with urban school leaders and teachers, and reflection upon professional experience working in and with urban schools experiencing reform overload.

Several attributes distinguish action research from other forms of research. Prominent among these distinctions is the dual role of the researcher as both the researcher and implementer of the program, tool, or intervention studied. The intimate role of the researcher in the design and implementation of the study poses a challenge to unbiased perceptions, and as such, requires the researcher to take precautions to guard against bias.

Action research also differs in that it takes place in real world contexts and in its inclusion of participants as co-researchers[10]. My design development study involves school leaders and teachers in the design process of the SCORE. Through research into the existing initiatives at the school site, and qualitative data gathering methods, including focus groups and interviews with teachers and school leaders about the energy, time, skill, and knowledge acquisition associated with the initiatives, a collaborative process will be forged. Additional collaboration will occur with the school leaders implementing the SCORE at the Development and Authentication School Sites and who will provide feedback as to its accuracy and feasibility of use. I believe this collective approach towards the development and modification of the SCORE will assist in the creation of a tool that is accurate, feasible, and clearly communicates the conditions of overload. However, caution will be employed throughout the design process to account for the close involvement of the researcher to the design process. With such a close involvement of the researcher, it is critical that design studies include a system of checks and balances to guard against issues of bias, reliability, and rigor. These issues are addressed in further detail in a later section.

II. Data Collection Strategies

My research involved assessing the design's impact and investigating the design process. For each component, I explain my data collection strategy. A description of each follows.

Design Impact. The impact of my design study will be determined in the Authentication Site and will be defined by the effectiveness of the tool itself. The impact of the SCORE is made manifest in its practicality of use for school leaders, its ability to accurately measure reform overload, and its ability to communicate absorptive capacity in the Authentication Site. The process of first applying and field-testing the SCORE, and secondarily checking the results against the reality of the Authentication Site's state of overload via qualitative data gathering, will allow me to assess impact.

Design Process. The design process of the SCORE centers upon activities related to the development of the tool itself. The design process is principally guided by review of the research and secondarily supported by professional experience working with overloaded schools. The design process will primarily unfold in the Development Site where the tool will be developed and designed through a cycle of implementation and refinement (see Table 3D for a detailed description of the site selection process). First, I will employ qualitative data gathering activities to confirm and understand the conditions of overload in the Development Site. Using data gathered at the Development Site, I will refine and further develop the content of the SCORE, to ensure that that it accurately

captures the many and varied work and work-related tasks teachers engage in on a regular basis that may impact overload. Finally, documentation, analysis, and reflection on the process and outcomes are necessary steps I will take so that the methodology of the design and development is made transparent and allows for design principles to be enumerated. A detailed outline of the design process is provided below (Table 3A).

TABLE 3A: TOOL DEVELOPMENT SEQUENCE OF ACTIVITIES

1. DEVELOP A CONCEPTUAL MODEL Preliminary content for the SCORE will be derived from consultation of the literature on 1) *Teachers' Work*, this literature provides a cohesive understanding of the tasks teachers are expected to perform during the school day as well as the "invisible work" teachers engage in outside of their regular duties; 2) *School Reform*, which explicates the factors contributing to overload as well as the symptoms or signs of overload; 3) *Teachers' Work -Teachers' Roles,* which identifies three fundamental ways in which teachers' roles are impacted by school change efforts; and 4) Policy influences on teachers' work, which delineates teacher tasks associated with school reform initiatives (Appendices I – IV).
2. FEEDBACK LOOP 1: MODIFY THE CONCEPTUAL MODEL The conceptual model will further be informed and modified by feedback and input from urban school administrators, specifically in response to the tasks that constitute the core of teachers' work, both within and outside of the legislated school day.
3. CREATE A DRAFT TOOL The conceptual model will be translated and formatted into a draft version of the tool**.** Using a Likert Scale response format, the draft tool will be deployed in the Development and Authentication sites. Likert scaling is appropriate for use in the SCORE, as it is a widely used response format to measure opinions, beliefs, and attitudes and, in the case of the SCORE, can capture teacher's perception about the time, personal energy and new skill and knowledge development required of them (DeVellis, 2003).
4. FEEDBACK LOOP 2: FIELD-TEST THE SCORE The draft tool will be field-tested with urban elementary school principals and elementary school teachers. Following the protocol outlined in *Scale Development: Theory and Applications*, DeVellis (2003), respondents will be asked to provide feedback on: 1) clarity and conciseness; 2) identifying ways of tapping into the phenomenon that might be absent from the tool; and 3) item relevance. An additional, yet essential, point of feedback includes solicitation of information about the amount of time it took respondents to complete the survey and whether or not it was time prohibitive. Revisions to the SCORE will be made based upon information learned in the second feedback loop. After making the requisite changes, the SCORE will be implemented at the Development Site.
5. IMPLEMENT AT DEVELOPMENT SITE An initial assessment of the Development Site's overload status will be made through discussions with the school principal and teacher leaders using the Principal and Teacher Leader Interview Protocol respectively (Appendices V and VI). Subsequent to the semi-structured interviews and focus groups, the SCORE will be administered to teachers. The findings of the site's overload status via the SCORE will be measured against the findings of the site's overload status through the semi-structured interviews, and debrief conversations with staff to scrutinize the results as well as the content of the SCORE.
6. FEEDBACK LOOP 3: DEBRIEF SCORE AND MAKE TOOL MODIFICATIONS BASED ON DEVELOPMENT SITE FINDINGS Depending on the findings at the Development Site, modifications and changes may be made to the SCORE to more artfully capture conditions of overload. This modified version will be deployed at the Authentication Site.
7. IMPLEMENT AT AUTHENTICATION SITE Determining the overload status at the Authentication Site will begin with the administration of the SCORE, followed by the semi-structured principal and teacher leader interviews and focus groups respectively.

8. DEBRIEF AND VERIFY AT THE AUTHENTICATION SITE The **effectiveness** of the SCORE will be measured against information of the Authentication Site's overload status garnered from qualitative information gathering as well as debrief conversations with staff to examine the accuracy of both the individual SCORE reports and the summative school report. Clarity and accuracy will be verified at the Authentication Site when the principal is presented with a snapshot of overload, using the My School SCORE Summary Sheet (Appendices VI - VII), which presents a snapshot of teacher responses in the areas of time, skill development, and personal energy.
9. ASSESS THE IMPACT OF THE SCORE Culling information from all data gathering activities, a conclusion will be reached about the SCORE's ability to accurately capture the conditions of overload, which may exist in schools.

III. UNIT OF ANALYSIS AND CASE SELECTION

Two northern California public elementary schools were selected to participate in the study using criterion sampling. Criterion sampling involved reviewing all potential cases and limiting the selection to cases that met predetermined criteria (Patton, 1990). Each school performed a distinct role and served a unique purpose in the overall development of the SCORE. Data gathered from both sites, however, contributed to the resulting impact and effectiveness of the SCORE.

The early phases in the tool development cycle (Table 3A) rely upon information generated through data collection activities at the Development Site. The input, feedback and experiences of Development Site staff and leadership engaging with the SCORE, provide a means to refine both the content and format of the tool to further ensure its accuracy and ability to clearly communicate the conditions of overload.

It was critical during case selection, that the Development Site contain characteristics of overloaded schools as identified in the literature (Table 3B).

TABLE 3B: FEATURES OF OVERLOADED SCHOOLS CORRELATED WITH THE DEVELOPMENT SITE

RESEARCH ON OVERLOADED SCHOOLS	CORRELATION WITH THE DEVELOPMENT SITE
In overloaded schools, the pressures to improve the conditions of teaching and learning, lead to the adoption of multiple initiatives in the hopes that the practices and knowledge associated with them will improve student outcomes (Newmann et al., 2001).	Initiatives: • New Reading Curriculum • New Technology Program • Common Core State Standards • Small Group Instruction • New school rules/classroom management system • Response to Intervention (RTI) *Source:* 2012-13 School Accountability Report Card (SARC); District Administrator; Unstructured Principal Interview
In overloaded schools the plethora of workshops, trainings and meetings associated with multiple reform activities don't allow teachers the time to support nor adopt mastery of the practices that may improve student learning (Newmann et al., 2001, Hess, 1999).	Workshops: • Literacy - Treasures Reading Program • Everyday Math • EduSoft and data analysis • English Language Development (ELD) • Differentiated instruction • Educational technology • Health Initiative w/ Kaiser Permanente

	• Response to Intervention (RTI) • Culturally Responsive Pedagogy, and • Efficacy Training *Source:* 2012-13 School Accountability Report Card (SARC); District Administrator; Unstructured Principal Interview
Low capacity schools in disadvantaged contexts have a particular challenge responding to the demands of school reform (Stoll 2009; Hatch 2002; F. M. Hess 1999; Newman et al., 2000; Noguera and Wells 2011).	• Title I School • 100% Socio-economic disadvantaged student population • 2 non-credentialed teachers • High teacher turnover over a five year period *Source:* 2012-13 School Accountability Report Card (SARC); District Administrator; Unstructured Principal Interview

While there needs to exist a reasonable certainty that overload exists in the Development Site, the foremost requirement for case selection of the Authentication Site, is that it closely matched the Authentication Site along key demographic features (Table 3C).

TABLE 3C: DEMOGRAPHIC FEATURES – DEVELOPMENT AND AUTHENTICATION SITES

	DEVELOPMENT SITE	AUTHENTICATION SITE
District	NorCal Unified School District (NCUSD)	NorCal Unified School District (NCUSD)
Grade Level	Elementary (K-6)	Elementary (K-6)
School Funding	Title I	Title I
Student Enrollment	321	538
Teachers (General Education)	13	18
Student Enrollment by Group	22% African American; 3% Asian/Filipino; 72% Hispanic/Latino; 1% White; 70% English Language Learners 100% Socioeconomically Disadvantaged	16% African American; 12% Asian/Filipino; 64% Hispanic/Latino; 5% White; 60% English Language Learners 87% Socioeconomically Disadvantaged
Principal Tenure and Years of Experience	3 years at this school and with the district	4 years at this school and with the district

Notable among the demographic characteristics of the two sites is the difference in student enrollment and the correlating difference in the size of the teaching staff. The Authentication Site serves nearly 200 more students and has nine more teachers than the Development Site. While not optimal for case selection, the similarities of other key demographic features (e.g., student enrollment by group, principal tenure, grade levels at

the school site, and school funding resource) were significant enough to initially consider this site as the most suitable Authentication Site. The final three conditions noted below, solidified the choice of the Authentication Site.

In addition to meeting the conditions prescribed for the Development and Authentication Sites respectively, three additional, and important, characteristics were considered, 1) principals' willingness to participate in the study, as expressed by a willingness to set aside time to make themselves available for interviews; 2) principals' availability to participate in the study, as expressed by the district administrator's confirmation that each of the selected principals' were strong managers of their respective schools and were not dealing with any current or impending staff or program issues that may interfere with their availability; and 3) staff's willingness to participate in the study, as expressed by each of the principals discussion of the collective temperament and nature of their staff.

TABLE 3D: DEVELOPMENT AND AUTHENTICATION SITES – SELECTION CRITERIA AND CHARACTERISTICS

DEVELOPMENT SITE

Description:

The Development Site is the first site in which the SCORE will be tested. This site is critical to the overall refinement of the SCORE before its final application in the Authentication Site. An assessment about overload will first be made via document review, principal**,** and school district leadership interviews and focus groups with teacher leaders, followed by the implementation of the SCORE.

Criteria:

1. School leader and teachers who are willing to participate in the study, including interviews, focus groups and pilot testing of the SCORE.
2. Reasonable assertion through document review and interviews that the school is overloaded.

Selection Process:

- School district selection: This study will be based in a northern California unified school district. This school district is selected for its numerous and diverse selection of elementary schools from which to choose, as well as my familiarity with district and school leaders, which may facilitate implementation of the study. When referenced, this school district will be referred to as NorCal Unified School District (NCUSD).
- Unstructured preliminary interview #1(District Leader): Unstructured interview with a district administrator in which the overview and goal of the study, as well as the sequence of activities of the study will be conveyed. Critical to this interview is the identification of a site that meets the criteria for the Development Site.
- Document review: Review of the 2012-13 School Accountability Report Card (SARC) and student achievement data via the California Department of Education (CDE) website for demographic data pertaining to the student population, number of enrolled students, grade levels served, the number of programs and partners associated with the school, and achievement levels (Academic Performance Index).
- Unstructured preliminary interview #2 (School Principal): Unstructured conversation with the school principal detailing the study and sequence of activities and the role (Authentication Site) in which their school will play within the study.

Site Selection:

The Development Site is an urban elementary school in a northern California school district. At one point this school had the undesirable distinction of being the lowest performing school in the state.

- Enrollment: 321
- Grade levels: K – 6
- Demographics: 22% African American; 3% Asian/Filipino; 72% Hispanic/Latino; 1% White; 100% English Language Learners
- Principal Tenure at this school site: 3 years
- Reading/Language arts programs (core and supplemental): Treasures, Reading Pro, WRITE, Moving Into English (MIE), Step Up to Writing and ACCLAIM.
- Math programs: Everyday Mathematics (K-6)
- Science program: Scott Foresman Science (K-6)
- Beyond the content area Professional Development (on-site and off-site): EduSoft and data analysis, English Language Development (ELD), differentiated instruction, educational technology, Health Initiative by Kaiser Permanente, Response to Intervention (RTI), Culturally Responsive Pedagogy, and Efficacy.
- API Rank: 2009-2011 Statewide Rank – 1; 2009-2010 Similar Schools Rank – 2; 2011 Similar Schools Rank – 3

AUTHENTICATION SITE

Description:

The Authentication Site is the site where the revised SCORE will be tested. The process of SCORE implementation at the Development Site is the reverse of that which will occur in the Authentication Site; the SCORE will be deployed first, followed by principal and teacher leader interviews and focus groups and document review.

Criteria:

1. School leader and teachers willing to participate in the study, including semi-structured interviews, focus groups and implementation of the SCORE.
2. Uncertain and initially unconfirmed state of the school relative to overload.

Selection Process:

- School district selection: (same as outlined in the Development Site).
- Unstructured preliminary interview #1(District Leader): Unstructured interview with a district administrator in which the overview and goal of the study, as well as the sequence of activities of the study will be conveyed. Critical to this interview is the identification of a site that meets the criteria for the Authentication Site.
- Document review: Review of the 2012-13 School Accountability Report Card (SARC) for demographic data pertaining to the student population, number of enrolled students, and grade levels served.
- Unstructured preliminary interview #2: Unstructured interview with the school principal detailing the study and sequence of study activities, and the role the Authentication Site will play within the study.

Site Selection:

The Authentication Site, similar to the Development Site, is situated in the NorCal Unified School District. Per development design, limited detailed information about the Authentication Site was gathered prior to SCORE implementation. The following information is the only known data about the Authentication Site:

- Enrollment: 538

- Grade levels: K – 6
- Demographics: 16% African American**;** 12% Asian/Filipino; 64% Hispanic/Latino; 5% White; 60% English Language Learners
- Principal Tenure at this school site: 4 years

IV. VALIDITY, RELIABILITY AND TRANSFERABILITY

The significance of my findings are determined by how the research design addresses issues common to social research. Validity, reliability, and transferability are commonly used tests to establish the quality of any empirical social research (Yin, 2009). In this section I describe how each test will be addressed in my study.

In Bernard (2000), validity is referred to as the accuracy and trustworthiness of instruments, data, and research findings. There are two types of validity critical to design development studies, internal validity and external validity. Internal validity addresses the true causes of the outcomes observed in the study[11]. It is defined as the approximate truth about inferences regarding cause-effect or causal relationships, and is a primary consideration for studies that assess the effects of interventions or social programs[12]. Internal validity in my design development study will be established two ways. First, validity is established in the Development Site, where I measure the criterion in the SCORE against the qualitative data gathered via semi-structured interviews. Validity is further established in the Authentication Site where the accuracy of the SCORE is measured. External validity addresses the transferability of the study to other people and other situations[13]. Given the limited settings in which the SCORE is implemented during the design study, external validity cannot be established.

Reliability is established in two ways. Primarily, reliability occurs through the meticulous documentation of each phase of the tool design process. Specifically, documentation of the various iterations of the tool, including the manipulation and adjustment of criteria are critical in establishing reliability and help define a causal relationship between the intervention design and outcomes. Additionally, reliability is established through the use of common research methods, such as semi-structured interviews that can be used by others in case of replication.

Transferability refers to the degree to which the results of research can be transferred to other contexts or settings. The researcher can enhance transferability by doing a thorough job of describing the research context and the assumptions that were central to the research[14]. In my design development study I ensure that transferability is enhanced through the process of tool development outlined in Table 2, and through detailed documentation of the conditions within the Development Site and the Authentication Site so that other school leaders will know the conditions under which the SCORE worked.

V. RIGOR, THREATS TO RIGOR, BIAS

Since action research is carried out in real-world contexts and involves close interaction between the researcher and the participants, issues of rigor, threats to rigor and bias pose viable challenges to validity and transferability. Melrose (2001) suggests that one way to develop or ensure rigor in action research, is to proceed through numerous cycles (iterations) of the design process. Melrose (2001) goes on to describe each cycle: the first cycle is exploratory, testing out ideas and theories; the second cycle

is an attempt to make improvements upon the first cycle; and the third cycle is the evaluation of the intervention. The SCORE withstands a similarly rigorous cycle of development in two school sites, including tool refinement, application/implementation, adjustment and validation at the Development Site, and an additional cycle of application/implementation, and validation at the Authentication Site.

The SCORE is an objective artifact whose accuracy and validity is tested and confirmed by its users, i.e., school principals and teachers. These users provide the information relevant to tool development and will therefore mitigate threats to rigor.

I have embarked upon this design study with the intent of developing a tool that detects overload in schools. Naturally, I am predisposed to wanting my efforts to be successful, and as such have an undeniable bias. Stake (2006) notes that one of the contributing factors to bias is the researcher's desire to prove that the intervention or phenomena is working. One challenge in the development of this tool is to ensure that I do not misinterpret information provided by the users (principals and teachers) to my advantage. To protect against bias, I have built in safeguards that help me check my assumptions and biases. Actively seeking data and presenting disconfirming information have helped avoid this potential bias (Creswell, 2007). Also, throughout the research process I reflectively examine how my background as a practitioner has shaped my findings (Creswell, 2007). To further mitigate bias, I not only rely upon the data generated through qualitative data gathering with principals and staff at the Development and Authentication Sites, I have confirmed and challenged results of the SCORE via the users' feedback with regard to accuracy, practicality of use, and clarity of communication. Lastly, I am keenly aware that this study is the beginning of an investigation into a site-based tool that will aid school leaders and teachers working in reform environments to understand their capacity. While I hope to arrive at an off the shelf, ready to use tool for schools, I realize that further investigation, beyond this study may need to occur.

This design study is an attempt to develop a research-based audit tool, the SCORE, which allows principals and teachers to identify whether or not overload exists in their context. In this chapter I outlined the major data collection strategies used to assess effectiveness of the design of the SCORE, as well as the sequence of tool development activities and criteria used in case selection. In the next chapter I present my findings from data collection and analysis.

CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA

INTRODUCTION

In this study, I proposed to assist school leaders and their staff to identify the conditions of overload that may exist within their respective schools. The purpose of this study was achieved through the development of a research-based, self-assessment tool, the School Capacity and Overload Review (SCORE). The SCORE assesses overload in one of five capacities research identifies as central to schools' ability to improve, human capital (Rice & Malen, 2010; Rice and Croninger, 2001). Specifically, human capital addresses the skills, knowledge and dispositions of personnel. The SCORE assesses human capital along three dimensions: 1) time, 2) new skill and knowledge development and, 3) personal energy/level of challenge. Research cites that the demands placed upon teachers working in reform environments may result in overload along these dimensions. The SCORE incorporates Likert Scale items to gauge teachers' level of overload relative to these three dimensions.

This chapter presents the findings of SCORE implementation at two urban elementary schools. In this chapter, I analyze data from the application of the SCORE at two school sites, the Development Site and the Authentication Site, and present my findings.

I. ORGANIZATION OF DATA ANALYSIS

In this study, two school sites were identified to facilitate the development of the SCORE and the stages of data collection: the Development Site and the Authentication Site. Each site contributed valuable insight and information to the construction of the SCORE and the determination of the success of the design. Two types of data are used to assess the effectiveness of the design of the SCORE, process data and impact data.

Design research presents an opportunity to examine the various stages of the design process. In this study, process data chronicles the journey of tool development and includes the set of activities instrumental in refining and shaping the SCORE. The Development Site is the designated site in which the activities integral to process data occur. Process data begins with consultation of the professional knowledge base, in which relevant literature was sourced to identify the causes and symptoms of overload, as well as to ascertain the tasks and roles central to teachers' work. Process data concludes with the deployment of the draft SCORE in the Development Site.

Conversely, impact data are collected to assess the effectiveness of the SCORE. Activities connected to the collection of impact data occur in the Authentication Site, where the revised version of the SCORE was administered. Impact data presents an opportunity to evaluate design feasibility with respect to the SCORE's accuracy, practicality of use and ability to clearly communicate overload. Impact data is principally informed by SCORE results and the validation of these results through teacher and principal feedback.

In this chapter, I analyze each type of data and present my findings. First, I present a description of process data activities and findings, and the implications for tool development.

II. Data Analysis: Process Data

Process data are informed by a review of the literature on school reform and teachers' work. These two bodies of research played a pivotal role in the development of a conceptual model. The conceptual model is further enhanced by practitioner feedback and input, contributing a nuance and pragmatism about teachers' work and the realities of urban schools that may not be found in the literature. The conceptual model, in turn, influenced the design of the initial iteration of the SCORE. This draft version of the tool was subsequently modified by information gleaned from an analysis of qualitative data. In this section, I present and analyze process data.

The sequence of activities constituting the collection of process data is displayed in Figure 4A. The relevance of each piece of data in the tool development process are presented and examined below.

Figure 4A: Process Data Sequence of Events

a) Research Two bodies of research informed the development of the SCORE: school reform and teachers' work. The school reform literature provided a necessary understanding of the contributing factors of overload and the ways in which overload is experienced by the teachers working in those environments. Among these, the dimensions of time, new skill and knowledge development, and personal energy were prominent. Additionally, the literature on teachers' work provided an understanding of the various tasks teachers are expected to perform. Jointly, these sources provided greater clarity as to the specific criteria that needed to be included in the SCORE in order to truly gauge overload. Below is a synthesis of information from the literature. A detailed presentation of these criteria can be found in Appendices II and III, tables A1 –A3.

Role Categories and Teachers' Tasks

Teachers' work is varied and complex. Depending upon context, the policy environment and a host of other factors, the roles and tasks teachers are expected to fulfill may vary from site to site. A review of the literature on teachers' work identified five role categories that embody the varied and numerous tasks teachers may be called upon to perform, irrespective of context: 1) instructional, 2) institutional, 3) collaborative, 4) learning and, 5) relational. Providing further clarity and enhanced understanding of teachers' work, the literature outlined specific tasks teachers are expected to perform. These tasks formed the basis of initial SCORE content, and were utilized as the criteria upon which teachers would examine their relative states of overload.

Table 4.1: Teacher Tasks

Presenting subject matter	Assessing students' work	Professional obligations	Professional development
Planning and	Providing extra help	Classroom preparation	Grade level

developing lessons	to students		collaboration
Behavior management	Communicating with parents and families	Housekeeping and recordkeeping	Assessments and data

Invisible Work

Invisible work is described in the literature as the work teachers' engage in outside of the school day, and is an often-overlooked aspect of teachers' work. Tasks that fall into this category can be an extension of work that may also occur within the school day, such as planning and developing lessons, but due to time and other logistical constraints, cannot be completed within that timeframe. These activities may also lie outside the normal realm of duties performed within the school day, and include tasks such as, mentoring, tutoring, or leading an extracurricular activity (Sheppard, 2008). The concept of invisible work proved instructive in understanding that teachers' time extends far beyond the end of the school day, and as such, needs to be accounted for in the SCORE.

b) Practitioner Input The SCORE was initially conceived as a web-based survey that could be easily deployed and accessed by teachers at the two participating study sites. The early iteration of the SCORE, in concept and in scope, lent itself to such a format, and was subsequently sent via web-based portal to four elementary school principals, one principal supervisor and four elementary school teachers, for their feedback and suggestions on the ways in which the tool could be improved. It is important to note, that none of these practitioners were affiliated with either of the two study sites, and as such, felt free to offer genuine critique of the tool. Practitioners selected to beta test the SCORE were selected based on my familiarity with them through various personal and professional networks, and their respective number of years working as professional educators in urban public school systems.

Employing procedures and recommendations on how to construct Likert Scale surveys specified in *Scale Development: Theory and Applications*, DeVellis (2003), and how to carry out effective survey research in *Designing & Conducting Survey Research A Comprehensive Guide,* Rea and Parker (2005), practitioners were asked to provide feedback in the following three areas: 1) clarity and conciseness, specifically, the use of ambiguous and/or confusing words and phrases; 2) identifying ways of tapping into the phenomenon that might be absent from the tool; and 3) item relevance. A selection of practitioner comments are provided below:

- *This takes too long [this teacher notes that it took her 15 minutes to complete the SCORE]. Elementary School Teacher* (FDBK 11/15/13)
- *Too long. [This teacher commented that she took the SCORE in a stop-start fashion. It took her approximately 20 minutes to complete]. Elementary School Teacher* (FDBK 11/15/13)
- *If you ask teachers directly if they are stressed or if they are working too hard, in this current climate of schools, of course they will obviously say "YES". You might want to look at how leading your questions are.* Elementary School Principal (FDBK 11/08/13)
- *I don't know what it is, but I think something is missing. If teachers fill this out, I'm not sure what this is telling me. Nowadays, we have to have a reason to ask them to do anything.* Elementary School Principal (FDBK 11/17/13)

c) Qualitative Data Gathering Collecting qualitative data was the first activity in the Development Site, and consisted of three events: 1) document review, 2) semi-structured interview with the school principal and, 3) a semi-structured focus group with teachers. A description of each activity is provided below.

Document Review

Prior to meeting with the principal, and in consultation with the district administrator who helped with site selection, I reviewed the school's most recent (2012-13) School Accountability Report Card (SARC) to gain an understanding of the demographics, achievement levels, staffing levels and programs in operation at the school. I sought to not only gain a global understanding of the school prior to my interview with the school principal, but I also wanted reasonable confirmation that the site selected as the Development Site comported with the research on overloaded schools (e.g., numerous initiatives, curricular programs, trainings and workshops).

Semi-Structured Interview with the Principal

Following the review of the SARC, I conducted a semi-structured interview with the principal of the Development Site. The primary purpose of the interview was to gain specific information about the school in the areas of: staffing, programs, partnerships and initiatives, and the principal's impressions as to the school's status of overload when taking into consideration the demands placed upon teachers.

With regard to staffing, the principal commented that the school had three new teachers, two of whom were still fulfilling the requirements necessary to acquire their credential, while the other had recently completed a credential program. The two non-credentialed teachers were assigned to combination classes, and did not receive their teaching assignments until after the start of the school year. All other staff at the school are fully credentialed teachers with several years of teaching experience in the school. Importantly, in this 45-minute interview, the principal shared that much of the information contained within the 2012-13 SARC was outdated, and that many changes to school programs and operations had taken effect since the submission of the SARC. Principally, the number of programs used to teach core content had been drastically reduced. Beginning with the 2013-14 school year, there was only one program in use to teach math, and one new program in use to teach reading and language arts. The numerous programs, supports and personnel employed to support children and teachers in the core content areas of reading and language arts and mathematics, as reported in the SARC, were no longer in place. All ancillary and supplemental programs were eliminated, along with the additional personnel. While teachers only had to focus on implementing one program for each core content area, the principal noted that they were having difficulty acclimating to the new reading program, despite attending the three-day district training. The principal stated that the staff not only struggled to make sense of the new materials, but in many cases, teachers did not have all requisite materials necessary to teach the program. Often, as noted by the principal, teachers would borrow materials from each other or from their grade level colleagues at other school sites, photocopy materials or create the lessons themselves. The difficulty of use and dearth of materials was later substantiated by teachers in the teacher focus group.

Lastly, with regard to partnerships and initiatives, the principal recounted five private and public partnerships dedicated to strengthening the social-emotional supports

of the students and families in the surrounding community. Additionally, to address the social emotional needs of students, the school initiated three school-wide programs focused on supporting teachers and students in maintaining an orderly, stress-free learning environment. At the district and site levels, three focal areas for professional development were being addressed, including: math, reading and language arts and common core state standard preparation.

When asked to reflect upon the impact of school operations on teachers, inclusive of the school environment/culture, staffing, programs, and partnerships and initiatives, the principal provided the following comments:

Dimension: Time

- *There's simply not enough time. They [the teachers] need more hours in the day; with all great intentions, other emergencies come up with the kids.* (DS PI 1/27/14)
- *The biggest gripe is the small group instruction – great in theory, difficult in reality. How do you have small group instruction when you're busy managing the behavior of all the other kids? There's not enough time for them to do this, to do both!* (DS PI 1/27/14)

Dimension: New Skill and Knowledge Development

- *Teachers are still in [the] process of learning materials – [the reading and language arts curriculum] has a lot of components – everyone is still in the phase of getting familiar with it.* (DS PI 1/27/14)
- *Even with teachers' pacing guides – these are tied to Common Core State Standards. This is a huge change. The pacing guides, benchmarks and curriculum don't align with each other. Teachers are doing their best to figure this out, but honestly, it's a big problem.* (DS PI 1/27/14)

Dimension: Personal Energy and Level of Challenge

- *[Teachers] strive to get as much done as possible. Daunting task.* (DS PI 1/27/14)
- *Staff has the energy and the drive to do the work, however, [the] biggest thing for them, their momentum will get going, but when social challenges come in, it can tip the scales. Overall, things have gotten better. It can be reflected in [the reduced number of] office suspensions.* (DS PI 1/27/14)
- *Their success depends on the needs of the kids. Social emotional needs impede instruction.* (DS PI 1/27/14)

Note: The principal's comments have been sorted according to the most relevant theme of time, skill and knowledge development, and personal energy/level of challenge. However, many of the comments could be positioned in multiple dimensions.

The principal concluded the interview with the following statement:

> "*Yes, my teachers are overloaded! They have to think out of the box. They have to [provide] regular teaching, plus PE [physical education] minutes. They need to fit in social studies, science, art, 45 minutes of English Language Development, a Response to Intervention mandate, and a PE mandate. [They] do the best they can with dealing with district mandates. They are good people and trying really hard."*

Teacher Focus Group

Prior to scheduling the focus group, the principal of the Development Site asked that I make a brief presentation to staff during an afterschool meeting. At the close of the presentation, staff was asked to sign up if they wanted to participate in the focus group. Nine of the school's 13 teachers (69%) elected to participate (Table 4.2). The purpose of the focus group is twofold, first, to get a sense of whether or not teachers expressed feelings of being overloaded in the three assessed dimension of the SCORE, and second, to leverage the conversation to identify gaps in the draft version of the tool.

The teacher focus group took place after school on a Wednesday, when no formal staff meeting or grade level collaboration was scheduled. The focus group lasted approximately 50 minutes (49 min: 19 sec), and covered topics pertaining to the tasks they were asked to perform, as well as the amount of time, challenge level, and demand for new knowledge and skill these tasks necessitated. To achieve this, focus group questions were crafted leveraging the framework presented in the literature on teachers' work, specifically as it relates to teachers' roles and the ways in which their roles and tasks have changed and been impacted by reform efforts (Teacher Focus Group Protocol, Appendix VII). The literature states that teachers' roles may expand, increase or intensify in the wake of pressures placed upon them by school reform measures (Valli and Buese, 2007). To gain a clear understanding of how their work has been impacted by reform measures, teachers were asked questions about the time, personal energy/level of challenge, and new knowledge and skill demands placed upon them. Select responses are provided below.

Dimension: Time

- T 5-6 CC: *It's a nightmare having to spend so much time outside of school...for a long time I didn't get any help with math – so much stuff needs to be in place that it takes too much time.* (FG – 1/29/14)
- T 1-1: *We have an extreme amount of PD after school off site.* (FG – 1/29/14)
- T 8-4 CC: *[There's] zero collaboration. It's difficult to collaborate because of combination classes, and in general. It just takes so much longer to get things done by yourself.* (FG – 1/29/14)
- T 3-4 CC: *There's not enough time in a day to get to everything.* (FG – 1/29/14)

Dimension: New Skill and Knowledge Development

- T 5-6 CC: *Really difficult to navigate – the way it's [the math curriculum] set up, it doesn't follow in a logical way.* (FG – 1/29/14)
- T 2-3: *[The math curriculum] is not aligned to common core standards at all…have to rework it…all we have is a revised pacing guide and that doesn't help.* (FG – 1/29/14)
- T 1-1: *[The math] training just skims the top. It's not intense. [We] need to figure out on our own what to do.* (FG – 1/29/14)

Dimension: Personal Energy and Level of Challenge

- T 2-3 *[There's] one English Only class and one Transitional English class at second grade. I feel isolated and have to do everything on my own. We can't plan together.* (FG – 1/29/14)

- T 5-6 CC *I'm a new teacher. I have a combo class. I have zero instruction from curriculum people. It's unclear as to how to access all the other [math] units. It's draining.* (FG – 1/29/14)
- T 2-3 *The environment alone is draining – let alone what [we] need to do in the classroom. [The students are] running out of the classroom, beating up on each other…[we] have an environment here where the children are really challenging and have issues that are way beyond what we can do.* (FG – 1/29/14)
- T 1-1 *I'm overwhelmed from the time school starts to the time kids leave. It's overwhelming. It never stops. It's not just what happens outside of school. We need more support from admin. We need a VP to help get kids so they will be where they need to be.* (FG – 1/29/14)

Note: Teachers' comments have been sorted according to the most relevant theme of time, skill and knowledge development, and personal energy/level of challenge. However, many of the comments could be positioned in multiple dimensions.

TABLE 4.2: FOCUS GROUP PARTICIPATION DEMOGRAPHIC INFORMATION

	School Staffing Levels	Focus Group Participation
Kindergarten	2	------
1st Grade	1	1
2nd Grade	2	2
3rd Grade	1	1
3rd/4th Combo Class	1	1
4th Grade	1	------
4th/5th Combo Class	1	1
5th Grade	2	2
5th/6th Combo Class	1	1
6th Grade	1	------
Total:	**13**	**9**

TABLE 4.3: FOCUS GROUP CODING KEY

Teaching Experience	Teaching Assignment	Coding Key
1st year teacher	3rd/4th Combo Class	T 3-4 CC
1st year teacher	5th/6th Combo Class	T 5-6 CC
1st year teacher	1st Grade	T 1-1
3 years	5th Grade	T 3-5
3 years	2nd Grade	T 2-3
5 years	2nd Grade	T 5-2
6 years	5th Grade	T 6 -5
8 years	4th/5th Combo Class	T 8-4 CC
9(+) years	3rd Grade	T 9-3

d) SCORE Implementation and Debrief After reviewing teacher and principal feedback, and making requisite changes to the SCORE, the teachers from the Development Site pilot tested the SCORE. Upon completion, I spoke to teachers about their experience engaging with the tool and their feedback.

The SCORE debrief session consisted of the same nine teachers who participated in the focus group. Together, we met to debrief their impressions of the tool and to identify any changes or modifications that needed to be made. Specifically, teachers were asked to provide feedback in the areas of: practicality of use, predominantly as it relates to their experience engaging with the tool; accuracy, as it concerns the tool's ability to capture the time, new skill and knowledge demands, and personal energy/level of challenge of their current work circumstance and; clarity of communication, particularly with the information generated through the scoring of individual responses in the Individual Summary Sheet. In a separate meeting, taking place after the teacher debrief, I engaged in an unstructured debrief with the principal to solicit feedback from a school leader's perspective. The principal provided feedback on the perceived accuracy, usefulness and clarity of information delineated in the My School SCORE Summary Sheet (Appendices VI - VII). Teacher and principal comments from the respective debrief sessions are provided below (Table 4.4).

TABLE 4.4: DEBRIEF - TEACHER AND PRINCIPAL IMPRESSIONS OF THE SCORE

Practicality of Use	Accuracy	Clarity of Communication
It would be helpful to take this online rather than using paper and pencil. Our district is now giving us things through email or some other internet/web portal. Teacher Development Site (DEB INT – 2/28/14) *It was okay. Kind of long. Thinking about the time for things [work tasks] took the most time.* Teacher Development Site (DEB INT – 2/28/14) *This makes sense to me and how I could use it. It's a different way of providing support to teachers. I don't have an assistant principal anymore, maybe this could help me identify problems or issues that my AP would normally pick up on.* Principal Development Site (DEB INT – 3/5/14)	**Time** *I know I am exhausted when the day ends. It's because of all the time I put into my work everyday and beyond. I think time is accurate, I definitely have none left at the end of the day…or week.* Teacher Development Site (DEB INT – 2/28/14 *Interesting. Yes. I know my teachers put in a lot of extra time. It is the nature of the profession. I expected to see this as an outcome. We talked about this.* Principal Development Site (DEB INT – 3/5/14) **New Knowledge and Skill Development** *Like I shared with you earlier, teachers are struggling with the new curriculum, and we are also having discussions on Common Core. The assessments are off, not aligned. So yes, it says that the majority of my teachers need to develop new skills. I agree.* Principal Development Site (DEB INT – 3/5/14) ***Personal Energy/Level of Challenge***	*Kind of cool to look at my work this way – my time, my challenge and how much I still need to learn.* Teacher Development Site (DEB INT – 2/28/14) *I can see what it is saying about my work. It's clear to me.* Teacher Development Site (DEB INT – 2/28/14) *This would be great if it could be color-coded. Maybe have all the challenges and stressors in red, and all the other areas that teachers find easy in green.* Principal Development Site (DEB INT – 3/5/14) *It makes sense to me. I can focus on whatever I need to focus on, teachers, challenges…I can look at what grade level or experience level of teacher needs support.* Principal Development Site (DEB INT – 3/5/14)

	I agree with this. I put in a lot to get this done and everyday is a new struggle. I mean, I'm not complaining you know. Teacher Development Site (DEB INT – 2/28/14) *This is a difficult place to work. With the challenging children and sometimes parents. Teachers want to do a good job, but I know it is hard on them.* Principal Development Site (DEB INT – 3/5/14)	

III. Process Data: Findings and Implications for Tool Development

Process data proved valuable in crafting a robust tool that aims to capture the state of overload that may exist in schools. Each stage of data collection, from the review of literature to the debrief conversations with teachers and the school principal, revealed information instrumental in the development of a tool that was ready to be tested in the Authentication Site. In the following section I summarize the findings and present the implication for tool development from the set of activities that constitute process data.

a) Research Based upon a review of the relevant literature, the topics of time, new skill and knowledge development, and personal energy/level of challenge, were elements frequently associated with overloaded school environments. Semi-structured conversations with teachers validated the findings within the research and led me to conclude that using these three dimensions as measures for assessing human capital overload was appropriate and relevant. Teachers, as well as the school principal, repeatedly expressed frustrations about the demands placed upon them and the constraints they experienced. The lack of time to complete all assigned tasks was a common thread in all data collection activities; teachers' struggle to learn and implement new curricula with little guidance was often expressed when the topic of instruction was broached; and a challenging school climate, as well as frustrations with the lack of necessary instructional materials and support were oft-cited as drains on their emotional energy.

b) Practitioner Input Practitioner feedback proved invaluable as a first step towards identifying areas in which the SCORE could be improved. Through review of practitioner comments, it was evident the draft SCORE needed significant revision to its overall structure and content. The following capture the findings from practitioner input and the resulting changes made to the SCORE.

Three significant findings emerged from practitioner feedback. First, it became clear that the overall structure and flow of the tool was not conducive to participant engagement. Practitioners completed the tool, but generally failed to capture the intended purpose or rationale of the tool prompts. One principal noted that as a school leader, she needed a compelling reason to ask teachers to do anything outside of their regular work tasks, and failed to find justification with this iteration of the tool. In my experience working with school leaders, I have found that when they approach teachers with requests

to engage in additional or supplementary tasks, they do so reluctantly. They understand that teachers' work is demanding, and that they need to be judicious about adding to their already full load. While the draft SCORE had a written overview and set of instructions for each section, it lacked a purposeful introduction or compelling reason for principals to ask their teachers to engage with it.

The final two findings emerged around the amount of time it took participants to complete the SCORE, and the identified list of teacher tasks embedded in the tool. A few of the practitioners expressed that the draft SCORE was too lengthy and took too long to complete. Specifically, two teachers and one principal remarked that time was a prohibiting factor in completing the draft SCORE (it took them 15 and 20 minutes respectively to complete the draft SCORE). On average, it took all practitioners 20 minutes to complete the draft SCORE. On the other hand, some of the practitioners noted that the SCORE was not comprehensive enough in capturing all of the tasks teachers engaged in on a regular basis. In light of practitioner feedback, the following changes were made to the SCORE:

First, the construction of the SCORE received a complete overhaul beginning with the addition of a compelling introduction which explains the problem of overload and the need for schools to evaluate their environment to determine whether or not it exists.

Second, the issues of time and an incomplete list of teachers' work tasks needed to be addressed. The SCORE is intended to be a quick assessment that determines if overload exists within the school environment, yet, in order for the SCORE to be as accurate as possible, a comprehensive list of teachers' tasks needed to be incorporated. These two concerns were seemingly at odds with each other, and a design decision had to be made. DeVellis (2003) notes that the final decision to accept or reject the advice of experts is the responsibility of the tool developer. In this occasion, as the tool developer, I chose to err on the side of a more enhanced and nuanced tool, rather than a shorter, less inclusive tool that appeased participants' sense of time.

With revised formatting and the addition of criteria, it became increasingly challenging to find a web-based survey platform that could support the new and modified SCORE. After performing a detailed search of web-based survey platforms, I identified two prospective contenders. Google Docs proved an apt tool upon which teachers could enter information relative to the length of time they spent completing specific core and supplementary teaching tasks, yet it did not posses the capacity to house a matrix that would provide respondents the ability to assess the dimensions of new knowledge and skill development, and personal energy. Conversely, Survey Monkey provided a suitable platform within which teachers could enter information about the degree of new knowledge and skill development and personal energy expended in pursuit of the tasks they are expected to fulfill, but it lacked the capacity to assess and calculate dimensions relating to the amount of time tasks consumed. While I briefly contemplated using two separate platforms (Google Docs and Survey Monkey), in the end, I felt it prohibitive to participation and practicality of use. At this juncture of the development phase, the decision was made to make the SCORE a paper-based (hard copy) survey.

c) Qualitative Data The collection of qualitative data in the Development Site are critical to tool development. It is through the collection and analysis of this data that a

preliminary judgment about the school's overload status occurs. Later, through the analysis of SCORE data, a determination will be made as to the SCORE's ability to accurately capture the conditions of overload that were revealed in the qualitative data.

Qualitative data include a semi-structured interview and focus group with the principal and teachers respectively (Appendix VI-VII). Participating teachers, as well as the school principal, were forthcoming in sharing the challenges and frustrations of their work, and the day-to-day realities of working in an environment where school reform shapes and impacts their work. Below I present the findings and implications for tool development from qualitative data gathering activities.

Dimension: Time

As revealed through principal interview and teacher focus group comments, teachers feel overloaded by the time demands of their work. In particular, the time dedicated to district mandated professional development, lesson planning, making sense of the new Reading Language Arts program, and planning instruction for English Language Development, which can span multiple grade levels in one class, were emphasized as time consuming activities.

Subsequent to the discussion about time, the criterion of English Language Development was added to the Classroom Instruction category. Additionally, the criterion of *communication with colleagues about new curricula* was added to the SCORE category entitled, New Programs & Organizational Structures.

Dimension: New Skill and Knowledge Development

There was general consensus among all teachers in the focus group, that the learning curve, particularly for the new reading/language arts program is very steep. Furthermore, the school's three new teachers cited the math program as an area where they are still struggling to acquire the necessary skills and knowledge needed to effectively and confidently teach the curriculum. Coupled with an expressed lack of support from instructional services, and an elimination of the staff providing support in the school, teachers are overloaded in this dimension. Bryk, 2009 and Newmann et al., 2001 indicate that with each school program comes a demand for new knowledge and pedagogy, and unless teachers are provided the support and space to master the practices associated with these programs, teachers can experience overload.

Subsequent to the conversation on the demands placed upon teachers for new skill and knowledge development, the following set of criteria was added to the SCORE under the category of New Programs and Organizational Structures:

- *Learning about new core curricular programs,*
- *Implementing new core curricular programs,*
- *Learning about new ancillary/supplementary curricular programs, and*
- *Implementing new ancillary/supplementary curricular programs.*

Dimension: Personal Energy/Level of Challenge

The discussion centered on the dimension of personal energy/level of challenge proved particularly illuminating. Teachers repeatedly mentioned social-emotional factors as an impediment to their work, specifically, their ability to fulfill their instructional tasks, and as a contributing factor to their senses of feeling overwhelmed. In particular, a challenging school climate, disruptive and distracting student outbursts in the classroom,

and occasionally tense relationships with parents (when discussing children's behavior), were cited as leading causes of stress. With reduced staffing at the administrative level (the school lost funding for the assistant principal position two years prior), teachers felt they were truly on their own in dealing with these social-emotional stressors. While acknowledging the school-wide programs aiming to address children's social emotional challenges, none of the teachers cited these programs as lessening their sense of frustration. Research states that schools often pay little or no consideration to the mental and physical demands placed upon teachers, and when teachers are not supported, they exhibit the signs and symptoms of overload (Levine and Leibert, 1987).

Subsequent to this conversation, the category of Social-Emotional Support was incorporated into the SCORE. Specific criteria within this category include:

- *Discipline and behavior management,*
- *Interfacing with school counselors and leadership, and*
- *Parental contact regarding student behavior*

d) SCORE Implementation and Debrief The nine Development Site teachers who completed the SCORE, also participated in the debrief session. Teachers reviewed their completed surveys during the debrief session, and reflected on various features and components of the survey including their impressions along the three dimensions identified in this study as central to tool effectiveness: 1) accuracy, 2) practicality of use and, 3) clarity of communication. Teacher responses are provided in the following tables. These tables also include comments from the debrief conversation with the principal, which took place immediately following the teacher debrief session.

TABLE 4.5 A: DEBRIEF – ACCURACY

Time

- *I'm definitely over my time budget. I knew that! I don't leave here until nearly five p.m., and I often do work at home! (Teacher)*
- *Time is spot on. I mean, I don't know if I actually am negative 350 minutes, but I know I work way over what I'm paid. (Teacher)*

Demand for New Skill and Knowledge

- *We don't have a lot of information about how to implement this [Reading Language Arts] program. I'm figuring stuff out by myself all the time. My demand in this area is high. (Teacher)*
- *I agree. They [the district] expect us to teach this [Reading Language Arts] program but we only had two days of training, which weren't that helpful. I'm teaching this like I would Open Court, I think the two are similar. So I have a little need for new skills. (Teacher)*
- *I am a new teacher and I have a combination class. I started school after it started. I'm just behind, trying to play catch-up all the time. I don't want to rob these kids of what they're supposed to know, but I need help. Mine is a 3, it's 'much'. (Teacher)*

Personal Energy/Level of Challenge

- *My challenge comes from putting everything together. The classroom disruptions, the curriculum, everything. I came out as 'stressful', which I think I am. (Teacher)*
- *I'm challenging according to this [the Individual SCORE Sheet]. It's pretty much right. Some days are easier than others but I guess it's right. (Teacher)*

TABLE 4.5B: DEBRIEF – PRACTICALITY OF USE

- *I think it's good to know what's going on with the school as a whole. (Teacher)*
- *It just took a lot of time (3 Teachers)*
- *Maybe, if we took this in a staff meeting, and had a chance to talk about it as a whole group, it would be useful. (Teacher)*
- *She [the researcher] said it could be used to change some things in the school. That would be useful, although I don't know what could be changed or where to start. (Teacher)*
- *This is important information for urban schools to have. I like that you're trying to help our schools. (Principal)*
- *I think it's important that you are doing this to help urban schools like us. (Principal)*
- *I can see where I can use this to see where teachers are and who needs help. (Principal)*

TABLE 4.5 C: DEBRIEF – CLARITY OF COMMUNICATION

Teachers commented on the clarity of information in the Individual SCORE Sheet

- *The calculation of time is kind of confusing. I wasn't sure at first how to fill it out; it took me a bit of time to figure out what you wanted there. (3 Teachers)*
- *I didn't know where to look at first. Where to put what and where things go. (Teacher)*

The Principal commented on the clarity of information presented in the My School SCORE Summary Sheet

- *This is helpful. (Principal)*
- *I'd be interested to see how things change when you go to the other school and change this. But it makes sense to me so far. (Principal)*
- *I'm not really surprised about the information. I know they're stressed and this shows that, and I know they are working hard and putting in a lot of hours, this shows that too (Principal)*
- *I have new teachers and this tells me that they have a lot of stress placed on them to learn the material and basically lean how to become teachers. (Principal)*

There were mixed reviews as to the practicality of use and clarity of the information presented in the SCORE. With respect to the practicality of use, the principal expressed that the information from the SCORE communicated valuable information about teachers' relative states of overload, and importantly, which teachers needed the most assistance. Regarding the clarity of information presented in the Individual SCORE Sheet, teachers largely indicated that there were points of confusion with figuring out how to fill out the form. One teacher stated that upon first glance she did not know what to do with this page. Lastly, when asked about the accuracy of the tool in identifying time budgets, skill and challenge levels, teachers generally felt the SCORE's portrayal of their overload levels accurately reflected their perceptions about themselves in these areas. Importantly, teachers did note the absence of criteria they viewed as essential elements of their work, and as such, proposed that the SCORE results may not paint a complete picture The following is a list of 'missing' but 'important' criteria shared by teachers in the debrief session.

Classroom Instruction:

- Physical education (2),

- Social studies (1) and
- Science (2)

Lesson Planning:
- Getting materials/funds (money) needed for projects, experiments (3)
- Internet access (1)

Social-Emotional Support:
- How student services disrupt academic work, especially when several students need services (1)
- [Dealing with] hostile parents (1)
- Students not getting services but constantly disrupting class (1)

Team and Committee Work:
- Community outreach activities (2)

In evaluating teachers' concerns about missing criteria and confusion in filling out the Individual SCORE Sheet, I elected to make select modifications to the SCORE and include only the measures that I believed had the broadest application in schools and that would be central to the tasks the majority of teachers engage in. Subsequent to the Development Site debrief conversations with teachers and the school principal, the following changes were made to the SCORE:

TABLE 4.6: CRITERIA CHANGES

Category: Classroom Instruction	Category: Lesson Planning	Individual SCORE Sheet: Calculating My Time Budget
Added criteria: • Physical Education (PE) • Science	**Added criteria:** Getting materials for projects/lessons/experiments	• Words were eliminated and sentences truncated, in order to create more white space on the page and to overall make this page less confusing. • The instructions for how teachers calculate their time budgets were revamped in order to make this clearer.

Process Data Summary

Process data were collected to improve the design and accuracy of the SCORE. Importantly, process data, particularly the qualitative data, was used to not only make improvements to the tool, but to validate the findings of SCORE results. Initial findings are promising, yet improvements and necessary changes to the SCORE were necessary. Admittedly, the sample size of participating teachers in the Development Site is small (n = 9), a factor taken into consideration when deliberating tool revision activities. However, the information gleaned from process data did generate useful information about the potential effectiveness of the SCORE. The qualitative data yielded information that point to an overloaded school within the dimension of human capital. Teachers, regardless of years of experience or tenure at the school, were overloaded in the dimensions of time, personal energy, and demand for new skill and knowledge

development. This state of overload was manifest in the qualitative data as well as in the results of the SCORE (Table 4.7).

TABLE 4.7: MY SCHOOL SCORE SUMMARY SHEET, DEVELOPMENT SITE (N=9) (SEE APPENDIX VIII FOR FULL VERSION)

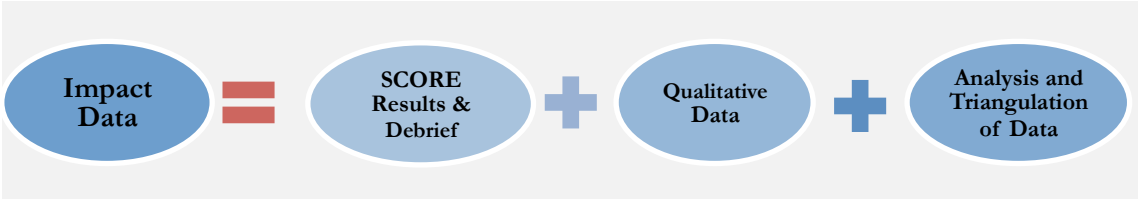
TIME BUDGET	SKILL AND KNOWLEDGE DEVELOPMENT		LEVEL OF CHALLENGE	
	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	SCHOOL & CLASSROOM IMPROVEMENT ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*	IMPROVEMENT ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*
-820	Very Much	Very Much	Challenging	Overwhelming
-735	Very Much	Very Much	Overwhelming	Overwhelming
-812	Some	Some	Stressful	Challenging
-271	Some	Some	Easy	Easy
-664	Much	Much	Challenging	Challenging
-750	Very Much	Very Much	Overwhelming	Stressful
-215	Little	Some	Easy	Challenging
-535	Some	Much	Challenging	Stressful
-810	Much	Much	Challenging	Overwhelming

In the next section, I present impact data and analyze the findings. I conclude the section with a discussion on tool effectiveness.

IV. DATA ANALYSIS: IMPACT DATA

Impact data present an opportunity to determine if the design challenge for this study has been met. In this design study, the express purposes of impact data are to assess SCORE effectiveness. Specifically, impact data were collected to determine if the design of the SCORE led to a tool that, 1) accurately measured overload along the identified dimensions of time, new skill and knowledge development, and personal energy and level of challenge, 2) was practical for teachers and the school principal to use and, 3) clearly communicates the status of overload that may exist within their school. The data collected in the Authentication Site will be used to determine the effectivess of the SCORE.

FIGURE 4B: IMPACT DATA SEQUENCE OF EVENTS



Collection of impact data in the Authentication Site occurred in somewhat of a reverse process from the collection of process data in the Development Site. The collection of process data was instrumental in shaping the structure and content of the

tool. As such, it was necessary to gather as much data in advance of tool implementation (e.g., review of the research, participant feedback and qualitative data), in order to make a determination of overload, and refine the SCORE so that it would effectively capture and incorporate the salient pieces of information gleaned from these data sources. In the Authentication Site, data collection activities begin with the application of the revised and more robust SCORE. The findings of SCORE data were used to make a preliminary determination of overload, which were later measured against information generated from the collection of qualitative data.

In this section, I present the sequence of events that comprise impact data. Each data source is described and its purpose explained, beginning with the review of SCORE results. This section concludes with the findings on tool effectiveness.

a) SCORE Results and Debrief – Examination of the Accuracy, Practicality of Use and Clarity of Communication of the SCORE

Teachers were invited, upon the urging of the principal, to voluntarily participate in an afterschool debrief session to discuss their SCORE results and, importantly, to provide feedback on their perceptions on the accuracy of the time, demand for new skill and knowledge, and personal energy/level of challenge, of their individual SCORE reports. Flyers promoting the afterschool session were placed in teachers' boxes, detailing the time, place and compensation (ten dollar gift cards and snacks) provided to participating teachers. Ten minutes prior to the end of school, and 15 minutes prior to the start of the debrief session, the principal reminded teachers via the school P.A. system about the meeting. The SCORE debrief session was held on a Thursday after school, four days after teachers were given the SCORE to complete. All general education teachers were given a copy of the SCORE to complete. Of the school's 18 teachers, 13 (72%) completed the SCORE. Six of the school's 18 teachers (33%) participated in the debrief session. While the participation rate in the debrief session was less than desired (n=6), participating teachers represented a cross-section of school staff with respect to their years of teaching experience and the grade levels taught (Tables 4.8 and 4.9). Unlike the teacher focus group, which occurs later in the data gathering process, the debrief session was not guided by a structured protocol. Rather, the conversation proceeded in an organic fashion, which allowed for a more in-depth conversation about the accuracy of the tool. In qualitative research, unstructured interviews are recommended when the researcher has developed enough of an understanding of his or her topic of interest to have a clear agenda for the discussion with respondents, while still remaining open to having his or her understanding of the area of inquiry open to revision by others[15]. In this instance, I had a clear sense of the information I needed to gain from my conversation with teachers. The discussion, lasting 60 minutes, centered on teachers' perception of the accuracy of their completed SCORE reports, and generated valuable information about tool effectiveness.

TABLE 4.8: FOCUS GROUP PARTICIPATION BY GRADE LEVEL

	School Staffing Levels	Debrief Participation
Kindergarten	3	2
1st Grade	3	------
2nd Grade	3	------
3rd/4th Grade	3	2

4th Grade	2	1
4th/5th Grade Combination	1	1
5th Grade	2	------
6th Grade	1	------

TABLE 4.9: TEACHER DEBRIEF CODING KEY

Teaching Assignment	Teaching Experience	Coding Key
Kindergarten	**17 years**	TK17
Kindergarten	**12 years**	TK12
3rd Grade	**3 years**	T33
3rd Grade	**5 years**	T35
4th Grade	**15 years**	T-415
4th/5th Grade Combination	**1 year**	T45-1

TABLE 4.10: MY SCHOOL SCORE SUMMARY SHEET, AUTHENTICATION SITE (N= 11) (SEE APPENDIX IX FOR FULL VERSION)

TIME BUDGET	SKILL AND KNOWLEDGE DEVELOPMENT		LEVEL OF CHALLENGE	
	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	SCHOOL & CLASSROOM IMPROVEMENT ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*	IMPROVEMENT ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*
-815 min	Little	Little	Easy	Easy
(Not Provided)	Some	Much	Challenging	Challenging
-235 min	Much	Much	Stressful	Challenging
-815 min	Little	Little	Easy	Easy
-535 min	Little	Little	Easy	Challenging
-235 min	Some	Some	Easy	Challenging
-334 min	Little	Some	Easy	Easy
-795 min	Little	Little	Easy	Challenging
-821 min	Little	Little	Easy	Challenging
-244 min	Little	Some	Easy	Challenging
-815 min	Little	Little	Easy	Easy

The SCORE debrief session began with an examination of the criteria, content and structure of the tool. Specifically, teachers were asked to identify elements of the SCORE, which may have been confusing or unclear, and to provide suggestions for tool improvement. Importantly, teachers were also asked to provide input on criteria they believed were missing from the SCORE. Select teacher responses are provided below:

T45-1: *I think you should have included social studies under Classroom Instruction.* (TDBRF – 3/06/14)

TK17: *But we don't all teach social studies. There's no time in the day to teach it.* (TDBRF – 3/06/14)

T45-1: *I spend the first part of the school year getting kids used to the classroom culture. Maybe under Classroom Instruction you could include peer mediation, self-talk, and bullying. Oh, I know, maybe a new section called Culture Building. It would include class rules, peer mediation and school rules.* (TDBRF – 3/06/14)

T-415: *Some of us have had a lot of shift in class dynamics, new kids coming in and others going. I spend a lot of time bringing new kids up to speed and photocopying materials for them. We need to capture that time somehow.* (TDBRF – 3/06/14)

T35: *We're in the middle of doing report cards. What about adding report cards and testing to the Assessment and Data [section]?* (TDBRF – 3/06/14)

T-415: *I know we're supposed to teach science, but I don't. Not everyone does. Where do I find the time for it?* (TDBRF – 3/06/14)

Subsequent to this discussion, teachers were then asked to provide feedback on each of the three measures used to determine SCORE effectiveness: accuracy, practicality of use, and clear communication of overload status. I will begin with a presentation of teachers' responses on the accuracy of the SCORE.

Measure: Accuracy

Question: *Did the SCORE accurately convey the conditions of overload as it relates to your time budgets, your need for new skill and knowledge development, and your personal energy and level of challenge?*

Dimension: Time

- *Overall, time is the problem. My result was a time deficit or overload. I think that's right. I think everyone has a time overload here. I have zero available minutes.* (TDBRF – 3/06/14)
- *There [are] more things to do than there is time available. If you add in transition times, plus the minutes allocated to teaching a specific program, we don't have enough time. My SCORE was right.* (TDBRF – 3/06/14)
- *For each grade it is different, how much time you spend outside of school. But I think we don't generally have enough time. I have a negative [amount of] time left.* (TDBRF – 3/06/14)
- *I didn't finish the whole calculation, but it would be negative. I didn't do all the math, but I could tell.* (TDBRF – 3/06/14)

The findings on the accuracy of teachers' time budgets, as reported in the Individual SCORE Sheet, are summarized in the table below. In the debrief session, all teachers confirmed that their time budgets were accurate.

TABLE 4.11: ACCURACY – TIME

Teachers who indicate: my SCORE results are accurate *Time*	If the SCORE is inaccurate, how would you reclassify your *Time*
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA

Dimension: Demand for New Skill and Knowledge Development

Figure 4C: Analyzing SCORE Results - Demand for Skill and Knowledge Development

Analyzing my SCORE

1 – *LITTLE* I have relatively little need for skill and knowledge development to fulfill the tasks I am expected to perform.

2 – *SOME* I have specific needs for skill and knowledge development in some, but not all aspects of my work.

3 – *MUCH* I have a considerable need for skill & knowledge development in order to feel more confident in carrying out my work tasks.

4 – *VERY MUCH* This is a steep learning curve! I need more time and support to develop the skills and knowledge necessary to confidently carry out my work tasks.

- *It's about right. Mine are mostly 2's. I feel comfortable mostly with everything. Same for level of challenge as well, I think that's right too.* (TDBRF – 3/06/14)
- *It takes time to learn a new program well enough so you can learn it and teach it. It's just time consuming more than anything. My scores were 1's. That fits.* (TDBRF – 3/06/14)
- *Scores were all 1's. I do a lot of the professional development things that the school offers. I have a good grasp on things that I am doing at my grade level.* (TDBRF – 3/06/14)
- *I'm a '2', 'some' need for development. That's true. I'm a new teacher. Can I still say I'm new after three years?* (TDBRF – 3/06/14)

Qualitative findings on the accuracy of New Knowledge and Skill Development, as reported in the Individual SCORE Sheet, are summarized in the following table.

TABLE 4.12: ACCURACY – NEW KNOWLEDGE AND SKILL DEVELOPMENT

Teachers who indicate: my SCORE results are accurate *Demand for New Knowledge and Skill Development*	If the SCORE is inaccurate, how would you reclassify your *Demand for New Knowledge and Skill Development*
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA

Dimension: Personal Energy/Level of Challenge

Figure 4D: Analyzing SCORE Results- Level of Challenge

Analyzing my SCORE

1 – Overall, my work tasks are *EASY!* I can accomplish most tasks with relatively little effort.

2 – I find some work tasks *CHALLENGING,* but I am prepared to meet these challenges head on!

3 – Work is rewarding, but sometimes *STRESSFUL,* yet I am determined to overcome all obstacles.

4 – The amount of energy and the degree of challenge I experience in completing my work is *OVERWHELMING,* but I'm working through it and doing the best I can!

- *I'm more of a '1' in math, and a '3' in RLA [Reading /Language Arts], RLA has always been a struggle for me, but to summarize, I think it's okay to say I'm a '2'. Taking everything into account, it makes sense.* (TDBRF – 3/06/14)
- *The job is not challenging to me, it's challenging in a good way, not in a stressful way. I enjoy the challenge that comes from teaching. I don't have that kind of challenge. I'm a '1' in that.* (TDBRF – 3/06/14)
- *Yes. I think mine [is] accurate. I'm all 1's.*
- *I agree. I don't like the word 'stressful', so I had a '2' and a '4'. The directions said to pick the number in the middle, but I chose '2' instead of '3' because I don't like the word 'stressful' in option '3'.* (TDBRF – 3/06/14)

In the debrief session, five of the six teachers (83%) indicated that their results in the dimension of personal energy and level of challenge were accurate (Table 4.13). The one dissenting teacher reasoned that her score was inaccurate because of her personal aversion to the word 'stressful' in the descriptor.

TABLE 4.13: ACCURACY - PERSONAL ENERGY/LEVEL OF CHALLENGE

Teachers who indicate: my SCORE results are accurate *Personal Energy / Level of Challenge*	If the SCORE is inaccurate, how would you reclassify your *Personal Energy/Level of Challenge?*
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA
-----	A '2' instead of a '3'

Measure: Practicality of Use

Questions*: How much time did it take you to complete the survey? Is the information about your time budget, your need for skill and knowledge development, and the level of challenge you experience, meaningful to you?*

Select responses are provided below.

- *It took about 20 or 25 minutes to finish it. It was reasonable.* (TDBRF – 3/06/14)
- *Yeah, about that, 20 or so minutes.* (TDBRF – 3/06/14)
- *About 20 minutes. I could see how it could be used with the administration to let them know how much time [we spend] doing things they don't realize.* (TDBRF – 3/06/14)
- *Could be useful too for [the] principal to see if they need to have a conversation about how much help a teacher might need.* (TDBRF – 3/06/14)

- *It was kind of hard answering questions, because some if it is not in minutes by week, or by month, it's more yearly. Kind of hard breaking it down into minutes…I would suggest putting some of them into a 'per year' or 'per month' versus having everything as 'per week.'* (TDBRF – 3/06/14)
- *It's good. I know that I'm stressed a lot and can't always take it apart and see what area is causing [me] the most stress. Now that I know what's stressing me out, where do I go with this? It's helpful, if [the] principal has this information and does something with it.* (TDBRF – 3/06/14)

Table 4.14 shows the average time to complete of the SCORE was 20 minutes. When questioned further, teachers agreed that this amount of time was reasonable and not overly burdensome. Four of six teachers (67%) expressed that the information revealed in the SCORE was interesting, while two teachers articulated that the information was more significant to principals who could use this information to influence change.

TABLE 4.14: PRACTICALITY OF USE

The amount of time it took to complete the SCORE was reasonable *Note: average time reported was 20 - 25 minutes*	The information is personally meaningful	The information is meaningful for the principal to leverage change
✓	✓	✓
✓	-----	✓
✓	-----	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓

Measure: Clear Communication

Questions: *Do you understand the information presented in the Individual SCORE Sheet about your personal overload status? Is it clear? Were there any points of confusion?*

Sample responses are provided below.

- *There are a lot of words. When I looked at it I was confused at first.* (TDBRF – 3/06/14)
- *If I was in a rush, I might glaze over it and not understand. But I understood it, so yes.* (TDBRF – 3/06/14)
- *Going back and forth to enter the points was confusing at first. I wanted to make sure I was putting in the right numbers in the right places.* (TDBRF – 3/06/14)
- *I was confused if I was supposed to calculate my out-of-school time or my in-school time. I calculated my out-of-school time. I can redo my calculation now if you want. Maybe be more specific about school/non-school time, paid or unpaid time.* (TDBRF – 3/06/14)
- *I thought you meant both, so that's what I did. Was that right?* (TDBRF – 3/06/14)

As demonstrated in Table 4.15, all of the teachers clearly understood the information summarized in the Individual SCORE Sheet about their overload status. However, many of the teachers also remarked that the process of sifting through the five pages of the tool was cumbersome and led to some confusion. The confusion associated

with the process of arriving at a score, while not directly linked to specific issues pertaining to the clarity of communicated information, must be noted.

TABLE 4.15: CLEAR COMMUNICATION OF OVERLOAD

Teachers who indicate they understand the information presented in the SCORE about their overload status N = 6	Teachers who indicate they do not understand the information presented in the SCORE about their overload status N = 6
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA
✓	NA

Note: Teachers' comments have been sorted according to the most relevant theme of time, skill and knowledge development, and personal energy/level of challenge. However, many of the comments could be positioned in multiple dimensions.

FINDINGS: SCORE RESULTS AND DEBRIEF In summary, the debrief session with six teachers from the Authentication Site revealed valuable information as to the effectiveness of the SCORE. Findings of the accuracy, practicality of use and clarity of communication are presented below.

Accuracy Initial conclusions about the accuracy of the SCORE, in the dimensions of time, demand for new skills and knowledge, and personal energy/level of challenge were formulated from a review of SCORE results and teacher feedback in the debrief session. Overwhelmingly, teachers' time calculations in the SCORE resulted in a time deficit, or overload, which were in accordance with teachers' individual and collective perceptions of the amount of time they spent engaged in work tasks. These results were found in the completed SCORE results of the six teachers participating in the debrief session, as well as in the results of the seven other teachers who completed the SCORE, but did not participate in the debrief session. Of significant importance, a review of the school's 13 completed SCOREs revealed that all teachers had exceeded the hours they were contractually obligated to work after accounting for their time under the Regular Work Duties and Recurring Professional Activities section. Naturally, this time deficit grew larger after accounting for time spent in engaging in tasks associated with School and Classroom Improvement.

In the dimension of new knowledge and skill development, teacher responses varied by years of experience. Scores for the two relatively new teachers, a first year teacher and third year teacher respectively, indicated greater need for skill and knowledge development, when compared to their veteran peers. Scores for novice teachers indicated 'much' need and 'some' need for skill and knowledge development in relation to their regular and recurring work duties (indicated by summary SCOREs of 3 and 2). These two teachers also indicated, via SCORE responses, a greater need for knowledge development in relation to school and classroom improvement activities than their more experienced peers (indicated by summary SCOREs of 3). These SCORE responses were confirmed by teachers' remarks in the debrief session. Of the seven other completed SCOREs, only

five had usable data. In these five SCOREs, teachers indicated 'little' and 'some' need for knowledge and skill development. Similar to the teachers in the debrief session; the more veteran teachers expressed 'little' need, while newer teachers expressed 'some' need in this area.

Lastly, the results of personal energy and level of challenge were discussed. Notable among the SCORE results, the first year teacher identified tasks associated with Regular Work Duties and Recurring Professional Activities as 'stressful', identified by a summary score of 3. The other novice teacher, rated the personal energy and challenge level associated with regular work tasks as 'challenging', identified by a summary score of '2''. Of equal importance, four of the six teachers (67%) rated the activities of School and Classroom Improvement as challenging. Similarly, the results of the seven other SCOREs reveals that a higher degree of challenge and energy is associated with tasks classified as School and Classroom Improvement than in the tasks identified in Regular Work Duties and Recurring Professional Activities.

Practicality of Use Practicality of use denotes a meaningfulness and value of the information generated. Data from the SCORE communicate information about teachers' level of stress and challenge, in relation to specific work tasks, to the principal. The Authentication Site principal expressed that the information was of practical use, and that she was able to derive meaning from the data in the SCORE about individual teachers' level of overload, and the patterns of overload across the school.

Practicality of use also includes the ease of use for the teachers engaging with the tool. Findings indicated mixed views on the ease of use. One teacher indicated how much easier this would have been to take if it had been a web-based tool, a view shared by teachers in the Development Site. Yet, other teachers indicated that they did not mind the paper and pen format, but would also appreciate having the option to complete this tool online.

Clear Communication of Information Clarity of communication takes two forms in the SCORE. First, teachers must be able to easily interpret the information about their identified states of overload from the Individual SCORE Sheet. This information takes into account the most frequently ascribed ratings (the mode) in each of the categories; this rating signifies teachers' state of overload relative to that measure. Additionally, principals must be able to construe meaning about individual indications of overload as well as overall patterns and themes of overload across the school from the My School SCORE Summary Sheet. The data on this measure shows each teachers state of overload in each of the SCORE categories. Principals can disaggregate the data by experience level or grade level, or, they can look for categories, such as School and Classroom Improvement, to uncover patterns where teachers as a whole, are experiencing overload.

Teacher and principal comments alike, indicate that they are easily able to identify individual and collective states of overload respectively.

b) Qualitative Data

The teacher focus group consisted of five teachers, and was held on the Monday following the SCORE debrief session. The focus group lasted approximately 38 minutes (37 min: 41sec), and the topics discussed included, teachers' time, their respective needs for new skill and knowledge development and the personal energy/level of challenge experienced in their work. These five teachers also participated in the SCORE debrief session a few days prior. In the teacher focus group, the Authentication Site teachers were

asked the same set of questions as the teachers who participated in the focus group at the Development Site. Focus group questions were aligned to the framework presented in the literature on teachers' work, specifically as it relates to teachers' tasks and the ways in which their roles and tasks have changed and been impacted by reform efforts (Teacher Focus Group Protocol, Appendix VII). Additionally, the same protocol that was used in the interview with the principal in the Development Site was used in the interview with the Authentication Site principal. The fundamental purpose of the principal interview was to gather information about general school operations in the areas of: staffing, school programs, initiatives and partners, and to gauge the principal's understanding of the teachers' time, stress levels and skill demands. Information gathered from teacher and principal interviews will be triangulated with data from the SCORE results to arrive at an overall determination of SCORE effectiveness.

TABLE 4.16: FOCUS GROUP PARTICIPATION

Teaching Assignment	Teaching Experience
Kindergarten	17 years
Kindergarten	12 years
3rd Grade	3 years
4th Grade	15 years
4th/5th Grade Combination	1 year

Select teacher and principal responses from the focus group and interview respectively, are provided below.

Dimension: Time

- *It's time consuming doing what we need to do to be ready for our students.* (Teacher FG – 3/10/14)
- *Report cards, grading assignments and quizzes, and organizing data onto spreadsheets/grade books are what I spend the most time on.* (Teacher FG – 3/10/14)
- *I'm doing a lot of extra stuff as a kindergarten teacher that a 2nd or 3rd grade teacher doesn't have to do. I'm creating a lot more stuff and I'm doing lesson planning. All of our testing is one on one too.* (Teacher FG – 3/10/14)
- *We all say we can do stuff, by putting it in our lesson plans. We say we can do stuff but aren't doing it. So many factors come in that are unaccounted for. I haven't taught most of my curriculum this week because there are other things to do.* (Teacher FG – 3/10/14)
- *I think teachers put in more time than they are paid for. The most time consuming is planning and getting materials together, grading, hanging work on walls, cleaning up after a day, and preparing for the next.* (Teacher FG – 3/10/14)
- *The majorities of teachers are providing bell-to-bell instruction, and have less than an hour a day to do extras.* (Principal INT– 3/13/14)

Dimension: New Skill and Knowledge Development

- *The new [Reading Language Arts] program isn't difficult. It's like Open Court.* (Teacher FG – 3/10/14)
- *It takes about two years to learn a new program, so, we're still in the process of learning [the Reading Language Arts Program].* (Teacher FG – 3/10/14)
- *It's time consuming to learn a new program. It's not difficult; it's not a skill issue.* (Teacher FG – 3/10/14)

- *You don't have to fully implement any program. That's my opinion. You're probably going to use supplementary stuff any way.* (Teacher FG – 3/10/14)
- *There are ways to implement it to fit your teaching style, to make it work with what you already know how to do.* (Teacher FG – 3/10/14)
- *Working with the new RLA program and managing small group instruction are really the two things that I need more help with. These things also stress me out.* (Teacher FG – 3/10/14)
- *The majority [of teachers] have sufficient skill and knowledge because they seek it. They go to district and other trainings on their own time.* (Principal INT– 3/13/14)
- *[I] think they [the teachers] have the skills to do it and the knowledge to do it, but they need more time*. (Principal INT– 3/13/14)

Dimension: Personal Energy and Level of Challenge

- *It's not difficult work it's easy. It is just time consuming.* (Teacher FG – 3/10/14)
- *We collaborate so well. We don't leave people out if they are struggling and need help. We have formal collaboration once a week, lots of collaboration at lunch, and afterschool we get together to go over stuff.* (Teacher FG – 3/10/14)
- *I don't feel challenged when I'm in school. I feel like this is what I signed up for. When I'm not at work, like on a Sunday, that's when I feel stressed and challenged. But not when I'm in school.* (Teacher FG – 3/10/14)
- *Most challenging is meeting individual needs, having the time to give personalized attention. Hard to balance the needs of the whole class vs. personalized needs*. (Teacher FG – 3/10/14)
- *You know, this varies year to year. It depends on how challenging your kids are. This year, I don't feel challenged.* (Teacher FG – 3/10/14)
- *I agree. We just don't have challenging kids here this year.* (Teacher FG – 3/10/14)
- *There are some things that should be happening but aren't but I pick my battles and don't add extra when I see they have just had one of those days.* (Principal INT– 3/13/14)

FINDINGS: QUALITATIVE DATA

A review of qualitative data gathered in the Authentication Site indicate that with the exception of the two relatively new teachers, teachers in general are not individually experiencing overload. Specifically, the qualitative data reveal that in the dimensions of new skill and knowledge development, and personal energy/level of challenge, teachers are generally not feeling overly challenged or stressed, and are not experiencing any of the signs or symptoms of overload.

TABLE 4.17: MY SCHOOL SCORE SUMMARY SHEET, AUTHENTICATION SITE (N= 11) (SEE APPENDIX IX FOR FULL VERSION)

TIME BUDGET	SKILL AND KNOWLEDGE DEVELOPMENT		PERSONAL ENERGY/LEVEL OF CHALLENGE	
	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	SCHOOL & CLASSROOM IMPROVEMENT ACTIVITIES **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	REGULAR DUTIES & RECURRING PROFESSIONAL ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*	IMPROVEMENT ACTIVITIES **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*

-815 min	Little	Little	Easy	Easy
(Not Provided)	Some	Much	Challenging	Challenging
-235 min	Much	Much	Stressful	Challenging
-815 min	Little	Little	Easy	Easy
-535 min	Little	Little	Easy	Challenging
-235 min	Some	Some	Easy	Challenging
-334 min	Little	Some	Easy	Easy
-795 min	Little	Little	Easy	Challenging
-821 min	Little	Little	Easy	Challenging
-244 min	Little	Some	Easy	Challenging
-815 min	Little	Little	Easy	Easy

OUTCOME FINDINGS: TOOL EFFECTIVENESS

To determine SCORE effectiveness and to maximize confidence in the findings of impact data, I will triangulate the findings from the qualitative data, which consists of an interview with the school principal, a focus group with teachers, and a debrief of tool results with teachers, against the data revealed an analysis of SCORE results. Using these multiple data sources adds a layer of depth to the findings that otherwise would not have been possible using a single-strategy approach, thus enhancing the validity and utility of the findings.

Accuracy

The design challenge articulates that diagnostic instruments such as the SCORE are effective when they are accurate in their measure designed to assess. The SCORE's accuracy was reflected in its ability to capture, in a comprehensive manner, the state of overload along the dimensions of time, demand for new skill and knowledge, and personal energy/level of challenge.

Below I present a summary of all data sources with respect to the dimension of tool accuracy.

TABLE 4.18: TRIANGULATION OF DATA- ACCURACY

SCORE Data (N =13)	Qualitative Data: SCORE Debrief (N = 6)	Qualitative Data: Teacher Focus Group (N = 5)	Qualitative Data: Principal Interview
Time All time calculations resulted in a time deficit/overload. All teachers had time deficits after calculating for minutes Regular Work Duties and Recurring Professional Activities.	**Time** All participating teachers indicated the calculation of their time budgets were accurate.	**Time** All participating teachers concurred that as a school, teachers put in more hours than they are contractually obligated to perform.	**Time** Teachers are putting in many additional hours that they are not paid for.
New Skill and Knowledge Development Teachers' SCORE	**New Skill and Knowledge Development** Teachers remarked that their SCORE data	**New Skill and Knowledge Development** Overall, teachers do	**New Skill and Knowledge Development** Teachers are not implementing the new

results varied: less experienced teachers indicate a stronger need for skill and knowledge development than experienced teachers. Greater demand for skill and knowledge development was associated with Classroom and School Improvement Activities than Regular and Recurring Activities across all experience levels.	was accurate in this dimension. Newer teachers admitted to some need for new skill and knowledge development, but most teachers did not feel overburdened by this need.	not feel a significant demand to acquire new skills and knowledge. Teachers do not feel pressured to fully implement the new curriculum.	RLA program with fidelity, and I see them falling back into familiar teaching habits. But I am choosing my battles.
Personal Energy/Level of Challenge SCORE data revealed relatively low levels of overload as demonstrated by a preponderance of scores in the *easy* and *challenging* range (score of 1 and 2 respectively).	**Personal Energy/Level of Challenge** Teachers made clear the distinction between the amount of time that is spent in doing their work, and the amount of challenge they experience. Time is an issue, however, challenge is not.	**Personal Energy/Level of Challenge** Teachers do not express extreme demands on them.	**Personal Energy/Level of Challenge** When compared to other teachers, their peers, I don't think my teachers are very stressed. I have support in place for teachers and I know when to push and when to stand back.

Impact data demonstrate a consistency in the findings of tool accuracy across multiple data points. Teachers are overloaded with respect to time, but are not overloaded in the dimensions of new skill and knowledge development, and personal energy and level of challenge.

Practicality of Use

The following table presents a summary of impact data on the SCORE's practicality of use.

TABLE 4.19: TRIANGULATION OF DATA- PRACTICALITY OF USE

Qualitative Data: SCORE Debrief (N = 6)	Qualitative Data: Principal Interview
Teachers' views on the usefulness of the SCORE:	***The school principal found the tool useful in the following ways:***
Teachers found limited use for the data presented in the SCORE. Teachers believe the SCORE is meaningful to the school principal for	The individual rating for each of these columns [regular work duties and recurring professional activities] is helpful to see what is happening on an individual level.

school improvement purposes. Discrepancy exists about the ease of use in filling out a survey on hard copy – some want a web-based tool, others are okay with a paper/pen tool.	I would want to use this for planning PD [professional development]. I would get more knowledge from looking closely at the levels of challenge than anything else. It would also be helpful to see how much help I would need to give my novice teachers. I could see giving this at different points during the school year.

Both data sources pertaining to the usefulness and meaningfulness of the SCORE, signify that the tool is principally of greatest use to school principals. While the intent of this design study was to develop a tool that provides school leaders the ability to identify the conditions of overload in their environment, I was hopeful that teachers would find meaning and value in the information presented in the tool as well. The school principal, however, was able to derive meaning from the tool and identify ways in which she could support her staff individually and collectively.

Clearly Communicate the Conditions of Overload

The objective of developing a tool that clearly communicates the conditions of overload has been met. Teachers and the school principal alike, agree that information is easily obtained from reviewing the individual and school level SCORE sheets respectively.

TABLE 4.20: TRIANGULATION OF DATA- CLEAR COMMUNICATION

Qualitative Data: SCORE Debrief (N = 6)	Qualitative Data: Principal Interview
Teachers understood the summary information presented in the Individual Summary Sheet.	The principal understands the information presented in the My School SCORE Summary Sheet and can identify individual teachers that need support, as well as patterns across the school where teachers are generally experiencing challenge.

Impact Data Summary

Impact data were collected to determine tool effectiveness and to gauge whether or not the design challenge had been met. Through an analysis of SCORE data, a review of the findings from principal interview and teacher focus group data, and teachers' self-reporting of the accuracy, usefulness and clarity of information presented in the SCORE, I was able to craft a tool with the potential to capture the overload that may exist within schools. Findings from this exploration in tool development illuminate the existing limitations and strengths of the study.

Results from the impact data reveal promising results for the effectiveness of the SCORE. The impact data suggest that the SCORE was able to capture overload with respect to individual teachers, as well as with the patterns of overload across the school. The tool produced as a result of this study shows potential in being able to ascertain the presence of overload in schools. In the three established measures used to determine tool effectiveness: accuracy, practicality of use, and an ability to clearly communicate the conditions of overload, the SCORE showed promising results.

V: Action Research

As stated in Chapter 3, this design study has an action research orientation. In this section I address the two primary concerns upon which such studies need transparency and clarification: my role as designer and my role as researcher. As the designer, my primary concern is that I stayed true to the articulated design process. As the researcher, my principal concern is that I remained open to the data I received, particularly when the data did not cohere with anticipated or expected findings.

Initial reflection upon my role in the design process clarified that I acted within the boundaries articulated at the onset of this design study. From the beginning of this process, I maintained a genuine curiosity and hopefulness about the possibility of designing a rigorous, research – based tool that identifies the conditions of overload that may exist in schools. This sincere sense of curiosity outweighed any personal bias I may have had in the outcome of the study; I was primarily interested in seeing how the data would unfold and what it would reveal. I methodically documented my process, and if this design was not successful, future studies could be conducted that could build upon my work, correct any missteps or omissions, and successfully design such a tool. Throughout each stage of the design process, I revisited the design plan, and executed activities in accordance with the plan. I also re-examined data collection and data interpretation using the self-reflection tools of action research detailed in Chapter 3.

Overall, I believe that the findings and interpretations were comprehensive and free from personal bias, and rigorous by the criteria of action research. In the next sections I illustrate how I arrived at these conclusions.

Concerns Around the Role of Designer When designing this study, I understood my primary role to be that of lead and sole designer. The design activities of my study all occurred in the Development Site, where information was gathered for the explicit purpose of informing tool development. It was in this phase of the study, where my actions and role of designer were of great importance. I consulted practitioners and leveraged information accumulated from teacher and principal focus groups and interviews respectively, I expected to have exclusive discretion as to which elements of the SCORE were deleted, added or modified. While I remained true to my role as lead designer and carefully followed the design plan, in hindsight, I believe that having teachers and principals acting in the role of co-designers, may have further diminished any challenge to or question of bias. As such, I am not aware of any personal bias that may have influenced the design of the SCORE, if anything, I erred more on the side of including teacher, principal and practitioner input than not. I did not have any co-designers to implement a system of checks and balances with regards to my personal bias. However, in my role as lead researcher, I earnestly attempted to weigh process data against my understanding of the literature, and my experience working with overloaded schools, when making revisions to the SCORE.

In summary, I found I acted appropriately in my role as designer, and within the bounds set forth by action research. I am confident that by following the design plan, and using participant feedback in various phases of the design process, to aid in shaping a more robust and comprehensive tool, I mitigated any potential bias.

Concerns Around the Role of Researcher The issues of researcher bias and subjectivity are important and necessary concerns when conducting a study with an action research orientation. Bias and subjectivity are natural and acceptable in action

research as long as they are critically examined and not ignored. There is a certain inevitability in the researcher bringing a potential bias to the study when collecting and analyzing data. Advocacy bias, in particular, is of concern since the researcher is also acting as the chief architect of the intervention, or in this case, the tool. In an effort to guard against advocacy bias, and draw incontrovertible conclusions as to the overall effectiveness of the SCORE, I triangulated all findings from impact data. Teacher and principal remarks from interviews and focus groups was used to verify or dispute findings found from SCORE results. When collecting process data, I followed procedures to maintain a research orientation. These included reflective journaling, following the research protocols, discussing data collection and analysis with a research colleague, and seeking disconfirming evidence when conducting data analysis. From a review of these procedures I found that I followed research protocols as planned with respect to the impact data.

This review of my research processes and data was necessary to address concerns characteristic of the researcher's involved participation in an action research project. In the next chapter, I present a discussion of the findings, implications of this study for practice, and recommendations for further research.

CHAPTER 5: DISCUSSION

INTRODUCTION

Schools exist in a perpetual state of transformation and change. They modify and adjust their practices, systems and structures to meet the demands required of them and to impact the educational outcomes of students. The resulting demand on teachers' time, energy, skill, and knowledge is unmatched, contributing to what is referenced in the school reform literature as overloading. Overloaded schools operate beyond their existing capacity and fail to produce improved student outcomes. The School Capacity and Overload Review (SCORE) was developed to assist school leaders in identifying the presence of overload in their schools, and importantly, to ascertain if fundamental aspects of human capital —teachers' time, personal energy, or ability to acquire and capitalize on new knowledge and skills —have been compromised. In this study, I detailed the activities contributing to the design and refinement of the SCORE and examined whether the design elements were effective in capturing overload.

In this chapter I discuss the findings of this study and assert that the theory of action and design of the SCORE are fundamentally sound. Furthermore, I contend that while a maiden exploration into tool development for school improvement purposes, this study yields promising results for those wishing to delve deeper into understanding the intersection of school capacity and school reform. I begin with a summary of the study in which I highlight key elements of the SCORE. Next, I identify limitations of the study, and the implications for practice and specific recommendations for further research. I conclude with my final thoughts about this study.

I. SUMMARY OF THE STUDY

The SCORE is a Likert Scale survey focused on detecting the presence of overload within the human capital aspect of school capacity. Human capital, when applied to a school setting, can be defined as the knowledge, skills, commitment, disposition, and intellectual ability of the school's staff. To achieve this, core tasks of teachers' work were identified and classified within two broad categories of teachers' work were identified from the literature: Regular Work Duties and Recurring Professional Activities, and School and Classroom Improvement Activities, as well as specific teacher tasks. Teachers were asked to rate their experiences along two dimensions: 1) the amount of new knowledge and skills required of them to carry out each task with high competence and, 2) the degree of challenge they experience in carrying out each task. Teachers' individual scores were determined by ascertaining the mode for each category. Once identified, teachers were presented with their score, or overload level, relative to the work categories. Another important element of the SCORE included teachers' calculations of the amount of time they spend, per week, engaged in each identified work tasks. Time budget calculations provided information as to whether they were operating in a time budget or surplus, and were essential to understanding their overall time demands, and the time demands relative to their regular and recurring tasks, and the school and classroom improvement tasks.

The study took place in two urban elementary schools in a Northern California school district. Included in the study were 24 participants, consisting of two principals, and 22 teachers. Nine practitioners (four elementary school principals, one supervisor of principals, and four elementary school teachers) were also engaged in the early phases of

the study to enhance the conceptual understanding of teachers' work, teacher tasks, and how they are impacted and influenced by school reform. A demographic description of each school is provided, as well as a breakdown of the years of experience and grade level(s) taught of each participating teacher.

II. Meeting the Design Challenge

The design challenge set forth in this study was to develop a diagnostic, research-based tool that identifies the overload that may exist in schools, thus allowing principals to gauge the absorptive capacity of their staff. The three specific criteria in the design challenge include:

1) Accuracy;
2) Practicality of Use; and
3) Clear communication of the conditions of overload

The findings in this study indicate that the SCORE was successful in meeting each of the three criteria in the design challenge and capturing the features of overload of the staff of the two participating elementary schools. Accuracy, a significant and essential criterion in tool effectiveness, was achieved in identifying the time demands of teachers, as well as determining the stress associated with knowledge and skill acquisition and level of personal energy and challenge experienced by staff. Specifically, with regard to time, findings from both schools in this study revealed elements of overload. Importantly, SCORE results of teachers' time budgets are analogous to what is revealed in the literature about the impact of school reform on teachers' work. The professional knowledge base asserts that in the course of completing their regular and routine work tasks, teachers already expend a tremendous amount of time and energy. In schools where reform activities are prevalent, however, teachers' roles increase. The number of tasks they are expected to perform proliferate as they are asked to do more things and with an increasing level of complexity from year to year. The SCORE was effectively able to capture the impact of reform work on teachers' time, revealing that teachers not only exceeded their contractual work hours while fulfilling their regular and routine tasks, but when accounting for time associated with school improvement efforts, time budgets deficits grew larger. Overall, teachers' experienced a deficit in their weekly time budgets ranging from -215 minutes to an alarming -850 minutes.

The conditions necessary to meet the remaining design challenge criteria of practicality of use and clarity of communication were also achieved. Qualitative data corroborate this finding. The principals in the Development Site and the Authentication Site found meaning in the information presented in the SCORE. They were able to identify patterns and pockets of overload and specific ways in which they could use this data to provide support to teachers.

Significant differences in how teachers in each site experienced and responded to the challenges and demands placed upon them in the other assessed dimensions of human capital are articulated and explained below.

III. Understanding the Findings within the Context of the Literature

Importantly, the findings of this study comport with studies in the school capacity and school reform literature. Findings from data collected in the Authentication Site did not reveal evidence of overload along two of the three assessed dimensions of human

capital; whereas, findings from the Development Site, exposed patterns of overload in all three assessed capacities of human capital. The theoretical literature provides a context and a means for understanding the findings of overload and the resulting absorptive capacity in each of the schools in this study. Of particular significance, are the concepts of internal accountability and instructional coherence found in the school capacity and school reform literature. In this section, I connect the two stories of overload and capacity illuminated in this study with the literature.

The two schools in this study depict two distinct sides of the capacity framework. The Authentication Site provides an example of a school that in spite of the excessive demands upon teachers' time, still manages to navigate the demands of school reform without experiencing overload. Both qualitative data and SCORE results support the contention that this school possesses absorptive capacity in the assessed areas of New Skill and Knowledge Acquisition and Personal Energy and Level of Challenge. Human capital therefore, is not compromised in this environment and is, in fact, supported through the structures and internal practices found within the school. The literature identifies three important factors that support and explain this finding: internal accountability, the instructional culture of schools, and the experience level of school staff.

Teachers in the Authentication Site are seemingly impervious to the deleterious effects that change efforts can inflict upon school personnel. In general, they are not overwhelmed from the pressures of learning new content, skills, strategies and organizational structures associated with the new reading and language arts adoption, nor are they overcome by the social emotional needs of students. Contributing to this buttressing of overload is an established internal accountability system that enables school staff to shape the reform efforts that enter their environment, rather than be shaped by them. The effective schools literature indicates that schools with strong internal accountability systems have greater coherence and shared views of what they are trying to accomplish; it provides the means for a focused and intentional allocation of resources to support school goals, including funding, staffing assignments, materials, and time dedicated to supporting the instructional framework. Schools with strong internal accountability systems, like the Authentication Site, respond to reform efforts with less volatility, thus shielding teachers from the turmoil and confusion endemic in overloaded environments. In fact, the Authentication Site is the only school in the NorCal Unified School District that has exited Program Improvement (PI). Examples of this school's internal accountability system can be found in the strategic alignment of resources used to support teachers in some of their more challenging instructional tasks including, teaching English Language Development (ELD) to students across multiple grade levels, and teaching core content (math and reading and language arts) in combination grade level classes (e.g., fourth and fifth grade combination class). Support personnel, both certificated and non-certificated, have been integrated into the school environment to alleviate teachers from the burden and challenge of teaching core content to students in two grade levels, and to support teachers in transitioning students to English proficiency.

Additionally, at the time of the study, the school was engaged in significantly fewer initiatives and partnerships, not directly tied to the instructional framework, than in previous years. The reduction in extraneous programs and partnerships may in fact play a significant role in the schools overall level of absorptive capacity. The principal reports

that these grants often required extra time from teachers and detracted from the instructional foci of the school. In some instances, these partnerships required teachers to participate in workshops where they learned new skills and strategies, complementary to program goals, but extraneous to the instructional framework. For example, a collaboration with an agency offering a structured play and recess program for students required teachers to learn the language and steps used within the program to maintain consistency of program goals and effectiveness. Conversely, in the Development Site there was a discernable lack of internal accountability and coherence. The three conditions necessary to meet the conditions of program coherence, as outlined in the literature, were notably absent: 1) the school did not adhere to nor seemingly possess a common instructional framework to guide teaching and learning. Rather, teachers remained to their own devices and inventions to figure out how to implement and navigate a new curriculum without instructional supports or the requisite instructional. In effect, teachers acted as independent agents, doing their best to make sense of and respond to the pressures placed upon them; 2) The working conditions for teachers in the school did not support the incorporation of the instructional framework into practice. Researchers conceptualize that the instructional culture of the school is a key component of school capacity, particularly, the social organization of schools. Notably, the Authentication Site has a robust culture of collaboration, including both formal and informal structures, providing individual teachers a buffer from overload. Teachers support each other in their work, and collectively work to achieve stated goals. By contrast, teachers at the Development Site expressed great anxiety and stress in regard to the instructional tasks they are charged with carrying out, specifically, the core curricular areas of math and reading and language arts. The systems and structures in place at the Development Site contribute to teachers' feelings of isolation. Specifically, the lack of formal and informal opportunities for collaboration, and the plethora of combination classes throughout the school, precluded teachers' ability to plan and learn from grade level peers.

An additional condition in the school contributing to teachers' feelings of overload includes the behavioral challenges and social emotional needs of the students. The seemingly frequent outbursts and disruptions from students exacerbated working conditions, and detracted from teachers' ability to focus on instruction and; 3) Resource allocation, funding and staffing assignments did not support the instructional framework. Notably, the three new and non-credentialed teachers were assigned to teach what most teachers would agree are among the more difficult classes to teach, combination grade level classes. Interestingly, the other teachers in the school were veteran teachers with many years of teaching experience, and specifically, many years of teaching in this school. However, they were not called upon to teach these more challenging classes. School resources were instead directed towards helping teachers understand and manage challenging student behaviors.

A final note about the Authentication Site - studies indicate that teacher experience levels may play a significant role in how they respond to new initiatives and demands. With the exception of two novice teachers, the majority of the teaching staff at the Authentication Site is composed of veteran teachers. The principal estimates that on average, teachers in the school have a minimum of six years teaching experience, with a significant number of teachers having 12 or more years of experience. These experienced

teachers did not succumb to pressures to fully implement the new reading and language arts curriculum. They remained confident that over time, they would learn to effectively integrate the program into their teaching routine. In the interim, they are content to pick and choose among the elements of the program they want to use, and do so by applying the skills and strategies they learned over the course of their respective careers. The literature notes that experienced or veteran teachers can, over time, become reluctant to participate and engage in reform activities and become increasingly cynical with each new reform. Perhaps, as the literature states, these veteran teachers have experienced enough reform and change throughout their careers, and are not overcome by the challenges inherent in a new curricular adoption. They did not appear to be willfully resistant, but faced change and pressure with a sense of security that allows them, and their practice, to remain unscathed, and indeed, very much intact.

In many respects, this design study is a tale of two capacities. The Development Site would be more clearly identified as an overloaded school with lower levels of capacity in the human capital dimension. It responded to the pressures of school reform in predictable ways outlined in the literature; teachers' roles increased, intensified and expanded to the point of overload. Lower capacity schools, along a spectrum of low – medium – high, are depicted as having staff that are isolated from one another, lack requisite resources, have low levels of cohesion, have a poorly integrated instructional framework, and a prevalence of issues related to student discipline, which undermine concerns about instruction. In contrast, the Authentication Site did not exhibit signs of being overloaded and most closely resembles schools depicted in the literature as medium or higher capacity school with respect to human capital. Higher capacity schools operate with greater collective commitment to shared goals, have formal structures in place to facilitate collaboration, and have shared norms and ample resources, all of which can provide a buffer from external pressures. The SCORE was able to successfully discern a difference in capacity levels of these two schools.

IV. Study Limitations

One discernible limitation of this study may call into question the broad application of the SCORE in other elementary schools. Findings of the SCORE as a tool to discern overload in the capacity of human capital are promising, however, the relatively small sample size of the participating teachers in this study (Development Site, n = 9; Authentication Site, n = 13) may prompt reservation when debating the overall effectiveness of the tool. While every effort was made to have full teacher participation — a full staff presentation of the study, gift card compensation for participating teachers, guarantees of anonymity, written reminders placed in teachers' boxes, and reminders from the principal —teacher participation did not reach desirable levels. A second limitation to this study, arising from the low rate of teacher participation, is that many of the same teachers that participated in the SCORE debrief also participated in the focus group. This was true of both school sites in this study. Increased confidence in the qualitative data generated in this study would have been enhanced by the participation of a separate and distinctive group of teachers.

As I reflect upon the challenge to garner full teacher participation in this study, and internally deliberate the causes and factors, the question of leverage repeatedly surfaces. As an external party or outsider to these schools, and as an individual with no supervisorial control over the schools or personnel within, I possessed no leverage to

compel or require greater teacher participation. The principals complied with all requests to aid with teacher recruitment efforts including, disseminating reminders, making announcements over school PA systems, and providing a list of teacher email addresses so that I could directly communicate with them, yet participation rates remained lower than desired. In the Development Site, 69% (nine of the school's 13 teachers) of the teachers completed the SCORE. In the Authentication Site, 13 of 18 teachers (72%) completed the SCORE, while 33% (six teachers) participated in the qualitative data sessions. Admittedly, findings would have been strengthened by full participation in each study site, and furthermore, would have provided principals a comprehensive depiction of overload and capacity.

Notwithstanding the limitations discussed above, this study was successful in meeting the design challenge and in so doing, yielded promising results for understanding the human capital that may exist within schools.

V. Study Strengths and Suggestions for Future Tool Iterations

The benefit and strength of design study research is that it makes explicit and meaningful the connection between research and practice. Particularly beneficial to the success of this design study and the effectiveness of the SCORE in capturing and revealing patterns of overload, was the pairing of research and practice. The intentional integration of research, through a review of the literature, and practice, through practitioner and teacher input, provided a strong foundation for the assessment of overload. An important and necessary first step in the tool design process was determining, from the literature, the aspects of teachers' work that needed to be assessed to determine overload. However, it was the contribution from practitioners in the early phase of tool design, and the input from teachers from the Development Site of the day-to-day realities of their work, that provided a necessary nuance to tool criteria. These initial first steps in tool design contributed to the development of a comprehensive tool that not only revealed validated patterns of overload in each of the study sites, but proved useful to the intended users of the tool, school principals. Importantly, qualitative data collected from the study sites revealed that the two schools were quite different in terms of overload and capacity, and the tool picked up on it.

The SCORE proved successful in its ability to reveal overload along the human capital dimension in the two schools included in this study. However, there exists room for improvements and adjustments to the tool that will increase its meaningfulness and applicability to other school settings. Specifically, I have identified three features or enhancements that will improve upon the current version of SCORE, they include an element of personalization that will allow schools to identify the specific criteria upon which they will assess overload, a web-based platform that will provide an alternative to the hardcopy format of the SCORE and, an improved scoring element that will facilitate users in determining their states of overload. A discussion of each recommendation for future iterations of the SCORE is provided below.

The next iteration of the SCORE should allow for each school to personalize the criteria used to assess overload. Using the existing version of the SCORE as a template, there should exist the capability for each school to input the specific work tasks and activities that are meaningful and germane to their environment. Through qualitative interviews with teachers and a review of literature, I identified and included in the

SCORE, what I believed to be a comprehensive set of work tasks. However, there remained teachers who expressed that certain tasks important to their work, were absent from the SCORE, including: teaching social studies, culture building, and peer mediation. A subsequent iteration of the SCORE, with the enhanced capability of allowing each site to individually choose the tasks and activities they regularly engaged in, will provide a more fulsome depiction of each schools' level of overload. Importantly, a web-based platform upon which the SCORE could be housed, would not only make the feature of personalization more feasible, it would also provide for a greater ease of use and accessibility for those disinclined to engage with a hardcopy, paper and pen based tool. A web-based SCORE would be accessible to teachers at their leisure, and may result in increased levels of participation. Utilizing a web-based platform would also aid with calculation of SCORE results, and alleviate users from the inconvenience of tallying their overload the also address the somewhat cumbersome scoring process in the current version of the SCORE. Presently, in order to ascertain states of overload, teachers' must sift through the pages of the four-page SCORE. Some of the teachers in the study indicated that the process of determining their point tallies was initially confusing and somewhat prohibitive. A web-based SCORE, that automatically tallied teachers' ratings, would greatly improve SCORE functionality.

VI. Implications for Practice

The findings of this study have significant implications for many persons and groups interested in reforming schools, including policy makers, and for persons charged with overseeing the implementation of reform activities, namely school principals. Below I discuss the implications of this study for school principals and policymakers.

School Principals School reform, and the tools and approaches used to govern the reform process commonly occur in a top-down manner. The role of the principal in the reform process is relegated to the oversight of reform implementation in their school; they hold little significant control over the how, when or why of reform activities. This study provides a rationale for a revised approach towards school reform; one in which the principal exercises greater agency over school improvement efforts and regulates the patterns of staff interaction with reform activities.

Principals' ability to effect change necessitates an understanding of the existing capacities and conditions within their schools. Unfortunately, this is seldom the case. The literature states that many education leaders, at both the district and school level, are unaware of what composes the entirety of teachers' work, and particularly, the added pressures experienced by those working in reform environments. This inadvertent and unintentional naiveté fosters and perpetuates the churning of reform, which in turn, generates negative outcomes for both teachers and students.

Armed with relevant and timely information of the individual and collective capacities of school staff, principals will be able to manage the change process and ensure the proper supports are in place and the necessary resources are allocated to facilitate successful implementation. While they may not possess the political capital to control the influx of reforms introduced into their context, principals can leverage the information about the absorptive capacity of their staff to mitigate the stress and overload experienced by teachers. For example, if SCORE data reveal that teachers are feeling overwhelmed with the assessment and data requirements inherent in a new curricular

adoption, the principal can redirect resources in the form of personnel, funding or materials, to aid teachers in the collection, scoring, and analysis of student data including, dedicating time in staff meetings to allow teachers the space and time to score assessment data, procure district and other resources that might provide further guidance and depth of understanding on how to use data to drive instruction.

This study has significant implications for the role of the principal in the reform process. I contend that, when armed with information of the capacity of their staff and the particular challenges and stressors experienced by staff, school leaders are better prepared to respond to and manage school improvement activities to effectuate positive educational outcomes for students.

Policymakers. Policymakers engaged in constructing school reform policies are on a continual quest to answer the "what works?" question to leveraging the capacities of school personnel to improve educational outcomes. The operating assumptions underlying many reforms, however, don't take into account the day-to-day realities of schools and subsequently, undermine implementation and capacity building efforts. They presuppose a level of organization and function that some schools simply do not possess, and result in general and sometimes generic improvement solutions.

The problems endemic in urban schools are multidimensional and multifaceted and therefore merit a school improvement process that addresses and respects schools' complexity. The resources, capacities, and diversity of populations within each school necessitate a set of reforms tailored to the distinctive needs and challenges of each school. Any attempt to improve schools must first take these factors into consideration prior to engaging in reform. Problematic in the current context, the tools and approaches used to improve schools do not differentiate among school contexts and the varying realities. For example, on the surface, the two schools included in the study are seemingly similar. The Development Site and the Authentication Site each serve a comparable high minority, high poverty, linguistically diverse population, in the same unified school district. The principals have relatively the same amount of leadership experience, and the teachers have access to the same district resources and professional development opportunities. Yet, upon deeper examination, these two schools have two very different realities when it comes to human capital and absorptive capacity. Engaging both schools in the same reform process and expecting them to respond in similar ways, with similar results, may not merely hinder capacity building efforts, they may also weaken existing capacities and destabilize already fragile school environments.

This study suggests the importance of understanding school capacity to maximize school improvement efforts. The SCORE aims to identify schools' areas of strength and challenge in order to identify opportunities for growth with respect to human capital. For overloaded schools, such as the Development Site, data generated from the SCORE can be used to shift human, fiscal and material resources to support the teachers in the practices and programs where overload and low capacity exist. Principals can individually, or in conjunction with the school leadership team or full staff, explore systems and structures that will support overloaded teachers and shore up capacities. For example, principals may use the data from the SCORE to partner teachers who have indicated stress or low capacity with a coach or a peer who alternatively possesses a level of mastery and comfort. In schools similar to the Authentication Site, where overload is not prevalent, there exists an opportunity for the school to innovate practices to provide a

more rigorous program of study for students and strengthen the overall educational program.

This study highlights the need for policymakers to not only acknowledge the diversity and varying capacities that exist within schools when formulating policy, but to refocus change efforts and begin with the end in mind.

VII. Conclusions

This design study is an initial foray into the world of tool development, but more importantly, it is a study that makes explicit the need to understand the tenuous relationship between school improvement and school capacity. Many of the existing studies on school reform focus on schools' inability to transform educational practices, yet these studies fail to adequately examine the reasons why reforms continue to churn and yield unsuccessful results. The intractability of reforms is an oft-heard refrain in the school reform literature, and an imposing obstacle to those tasked with transforming schools. When culpability is levied for stalled improvement, what frequently takes place is a shifting of blame that may occur in the following manner: states blame districts, districts blame principals, principals blame teachers, and teachers blame the students and their families. This study, however, illuminates the need for a new approach in the reform process, one that begins with the school in mind and takes into account the reality of each school including, existing capacities, and results in the identification of reforms that leverage these capacities.

In many ways, this design study was a journey that has brought me full circle. I have spent the majority of my professional career as an external technical assistance provider to schools navigating the reform process. While I no longer engage in this specific line of work, I continue to champion the work of urban schools and believe deeply in the power of education to positively impact and transform lives. This study has been both an enlightening and humbling experience that has brought me face to face with my long-held operational assumptions about why urban schools continually struggle to improve educational outcomes for students.

Through this intensive study on school capacity and overload, I now understand, on a deeper and more significant level, the failings of the system and structures used to effect educational change for populations in greatest need. Throughout my years of working with underperforming schools, I failed to acknowledge or take into account the capacities of the individuals closest to the work. Utilizing the protocols and tools at my disposal, I shepherded schools through reform processes that they may not have had the capacity to implement or even sustain. If, in the future, I am presented with an opportunity to assist a school in the reform process, I would begin with an examination of the existing capacities. Using the SCORE to measure overload, I would encourage adoption of structures and programs that are in alignment with the school's strengths and capacities, and provide technical assistance to help them establish competencies in critical capacities central to school capacity.

I am hopeful that this study will serve as a catalyst for change in how technical assistance providers approach the school reform process. Specifically, school reformers should look beyond the monikers and labels used to define schools and begin to delve deeper into understanding the specific capacities and conditions that serve to propel or inhibit each schools' ability to improve, and those that may contribute to overload. I am

intimately aware and appreciative of the fact that school reformers are obliged to utilize and adhere to an established set of tools and protocols when engaging in this work. However, at a minimum, I encourage technical assistance providers as well as others who engage in this work, to add one more tool or practice into their existing arsenal.

Abandoning the one size fits all approach to school reform, in favor of a more nuanced and comprehensive approach that acknowledges the unique conditions and characteristics of each school, will not only improve the outcome of school improvement efforts, it will improve the overall effectiveness of school change agents.

REFERENCES

American Institutes for Research. (2006). California comprehensive center: research summary supporting the nine essential program components and academic program survey. WestEd.

Argyris, C., & Schon, D. (1978). *Organizational Learning: A Theory of Action and Perspective*: Addison-Wesley.

Bailey, B. (2000). The impact of mandated change on teachers. The sharp edge of educational change, 112-128.

Bernard, H. R. (2000). *Social research methods*. Thousand Oaks, CA: Sage.

Borko, H., Wolf, S. A., Simone, G., & Uchiyama, K. (*2003*). Schools in transition: Reform efforts and school capacity in Washington state. Educational Evaluation and Policy Analysis, 25: 171-201

Bruno, R., Ashby, S., and Manzo IV, F. (2012). Beyond the classroom: An analysis of a Chicago public school teacher's actual workday. University of Illinois at Urbana-Champaign, Urbana-Champaign.

Bryk, A. S., Sebring, P. B., Allensworth, E., Easton, J. Q., & Luppescu, S. (2010). *Organizing schools for improvement: Lessons from Chicago*. University of Chicago Press.

Coghlan, D., & Brannick, T. (2007). *Doing Action Research In Your Own Organization:* Los Angeles: Sage Publications.

Corcoran, T. & Goertz, M. (1995). Instructional capacity and high performance schools. Educational Researcher, 24 (9), 27-31.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches (2nd edition)*. Thousand Oaks: Sage.

Cuban, L. (1990). "Reforming Again, Again, and Again." Educational Researcher 19(1): 3-13.

Darling-Hammond, L., & Post, L. (2000). Inequality in teaching and schooling: Supporting high-quality teaching and leadership in low-income schools. *A notion at risk: Preserving public education as an engine for social mobility*, 127-167.

Darling-Hammond, L. (2007). Race, inequality and educational accountability: The irony of 'No Child Left Behind'. *Race Ethnicity and Education*, *10*(3), 245-260.

DeVellis, R. F. (2003). *Scale development: Theory and applications* (Vol. 26). Sage.

Elmore, R. F. (2003). Accountability and capacity. *The new accountability: High schools and high-stakes testing*, 195-209.

Elmore, R. F. (2004). School Reform from the Inside Out: Policy, Practice and Performance. Cambridge, Harvard Education Press.

Fullan, M. G. (1996). Turning Systemic Thinking on Its Head. *Phi delta kappan*, *77*(6), 420-23.

Fullan, M. (2001). Leading in a Culture of Change. San Francisco: Jossey-Bass.Fullan (1991)

Fullan, M., & Hargreaves, A. (1996). *What's Worth Fighting for in Your School? Revised Edition*. Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027.

Gilmore, T., Krantz, J., & Ramirez, R. (1986). "Action based modes of inquiry and the host-researcher relationship" Consultation 5.3: 161

Guskey, T. (2003). How classroom assessments improve learning. *Educational Leadership,* 60(5), 6-11

Hargreaves, A. (1992). Time and Teachers' Work: Teacher Preparation Time and Intensification Thesis. *The Teachers College Record*, *94*(1), 87-108.

Hargreaves, A. (2000). Four ages of professionalism and professional learning. Teachers and teaching: theory and practice, 6(2), 151-182.

Hatch, T. (2001). Incoherence in the system: Three perspectives on the implementation of multiple initiatives in one district. *American Journal of Education*, 407-437.

Hatch, T. (2011). What does it really take to improve schools. *University of California, San Diego*.

Hess, F. M. (1999). Spinning wheels: The politics of urban school reform. Washington, DC, Brookings Institution Press.

Holme, J. J., & Rangel, V. S. (2012). Putting School Reform in Its Place Social Geography, Organizational Social Capital, and School Performance. *American Educational Research Journal*, *49*(2), 257-283.

Honig, M. I., & Hatch, T. C. (2004). Crafting coherence: How schools strategically manage multiple, external demands. *Educational Researcher*, *33*(8), 16-30.

Knapp, M. (1997). Between systemic reforms and the mathematics and science classroom: The dynamics of innovation, implementation, and professional learning. *Review of Educational Research, 67,* 227–266.

Kozol, J. (1991). Savage inequities. *Southbridge, Mass.: Crowne*.

Lortie, D. C. (1975). *Schoolteacher: A sociological study* (pp. 25-81). Chicago: University of Chicago Press.

Malen, B., & Rice, J. K. (2004). A framework for assessing the impact of education reforms on school capacity: Insights from studies of high-stakes accountability initiatives. *Educational Policy*, *18*(5), 631-660.

McMann, M. (2011). District focus on alignment shifts culture of learning. *ASCD Express,* 6(10).

Melrose, M. (2001). The rigor of action research: why would you want to? How could you? Thousand Oaks, CA: Sage.

Mintrop, H. (2004). Schools on probation: How accountability works (and doesn't work). New York: Teachers College Press. Introductions to Parts I, and II, pp. 15-16; 65-66.

Morrison, J. (2008). Why teachers must be data experts. *Educational Leadership*, 66(4)

Newmann, F. M., King, M. B., & Youngs, P. (2000). Professional development that addresses school capacity: Lessons from urban elementary schools. *American Journal of Education,108,* 259–299.

Newmann, F. M., B. Smith, et al. (2001). School Instructional Program Coherence: Benefits and Challenges. I. C. s. Schools, Consortium on Chicago School Research.

Noguera, P. A., & Wells, L. (2011). The Politics of School Reform: A Broader and Bolder Approach for Newark. *Berkeley Review of Education*, *2*(1).

Oakes, J., & Lipton, M. (2003). *Teaching to change the world*. McGraw-Hill Humanities/Social Sciences/Languages.

O'Day, J. A. (2002). Complexity, accountability, and school improvement. *Harvard Educational Review*, *72*(3), 293-329.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park: Sage Publications.

Rea, L. M., & Parker, R. A. (2012). *Designing and conducting survey research: A comprehensive guide*. John Wiley & Sons.

Rice, J. K. and Malen, B. (2010). *School reconstitution as an education reform strategy: a synopsis of the evidence.* Washington, DC: National Education Association.

Rosenholtz, S. J. (1991). *Teachers' workplace: The social organization of schools*. New York: Teachers College Press.

Sheppard, B. H. (2008). *The Effect of Noninstructional Workload Tasks Upon Instructional Time for Classroom Teachers in Public Schools in an Urban School District*. ProQuest.

Smith, M. S., & O'Day, J. (1991). Systemic school reform. In S. H. Fuhrman & B. Malen (Eds.), The politics of curriculum and testing, Politics of Education Association yearbook, 1990 (pp. 233–267). London: Taylor & Francis.

Stake, R. E. (2006). Multiple case study analysis. New York: Guilford.

Stoll, L. (2009). Capacity building for school improvement or creating capacity for learning? A changing landscape. *Journal of Educational Change*, *10*(2), 115-127.

Trujillo, T. (2012). Paradoxical logic of turnarounds: a catch 22. Teachers College Record, Date Published: June 14, 2012 http://www.tcrecord.org ID Number: 16797, Date Accessed: 7//13/2012 2:25:15 PM

Valli, L., & Buese, D. (2007). The changing roles of teachers in an era of high-stakes accountability. *American Educational Research Journal*, *44*(3), 519-558.

Van den Akker, J. (Ed.). (1999). Design approaches and tools in education and training. Dordrecht, NL: Kluwer.

Weiss, M. (2007). Communication through community? the effects of structural changes on high school communication. Consortium for Policy Research in Education.

Yin, R.K. (2009). Case Study Research: Design and Methods. Los Angeles: Sage Publications.

[1] <http://edsource.org/iss_sta_interventions.html [access date: February 2, 2014]
[2] <http://www.edsource.org/1177.html [access date: January 29,2014]
[3] < http://edsource.org/iss_sta_interventions.html [access date: February 2, 2014]
[4] < http://www.cde.ca.gov/ta/ac/ti/programimprov.asp [access date: February 4, 2014]
[5]<http://www.educationalsupportteam.net/index.php?option=com_content&view=article&id=31&Itmid=40 [access date: January 31, 2014]
[6] <http://www.cde.ca.gov/ta/ac/ay/tidetermine.asp [access date: January 14, 2013}
[7]<https://www.experience.com/alumnus/article?channel_id=education&source_page=editor_picks&article_id=article_1133291019105 [access date: October 1, 2013]
[8] <http://www.keystoneaccountability.org/glossary> [access date: April 11,2012]
[9] <http://www.web.ca/robrien/papers/arfinal.html#_edn1 [access date: April 20, 2012]
[10] < http://www.web.ca/robrien/papers/arfinal.html#_edn1> [access date: April 20, 2012]
[11]<http://web.jjay.cuny.edu/~pzapf/classes/CRJ70000/Internal%20and%20External%20Validity.htm>[access date: April 20, 2012]
[12] <http://www.socialresearchmethods.net/kb/intval.php >[access date: April 20, 2012]
[13]<http://web.jjay.cuny.edu/~pzapf/classes/CRJ70000/Internal%20and%20External%20Validity.htm>[access date: April 20, 2012]
[14] <http://www.socialresearchmethods.net/kb/qualval.php> [Access date: September 25, 2012]
[15] <http://www.qualres.org/HomeUnst-3630.html [access date: March 15, 2014]

APPENDIX I
SCORE Development: A Rationale

The SCORE is designed to measure the time, new knowledge and skill development, and personal energy teachers have at their disposal after a series of reform measures have been introduced into their environments. Three important and necessary phases of tool development have been established to ensure efficacy and accuracy of these measures. First, I will begin with an examination of teachers' work, inclusive of both teaching (technical) and non-teaching (non-technical) related tasks framed within the legislated school day. Knowing how teachers spend their day, and the various tasks they are expected to perform, provides the basis for understanding the time, energy and skill demands of teaching, and how reform activities may impede upon these elements in pursuit of those efforts. Next, I will identify what has been characterized in the literature as the "invisible work" of teachers. Sheppard (2008), citing Choy (1997), broadly defines "invisible work" as the work teachers perform outside of the established school day. Invisible work is often an extension of the work teachers perform within the school day, and is an often-overlooked dimension of teaching. However, it is my contention that "invisible work" may have a significant impact on overloaded schools with respect to teachers' time, skill, and energy. For the purposes of SCORE development and overload analysis, invisible work will be defined as the time teachers spend outside of the school day devoted to teaching and school-related tasks, such as planning and preparing lessons, as well as time spent in furtherance of career and professional ambitions, including credential and/or professional degree programs. While much of teachers' time is spent with their students engaged in one or more facets of teaching, the "invisible work" is considerable and has significantly intensified the job of teaching (Sheppard, 2008; Hargreaves, 1992). I conclude with an analysis of the skill and energy utilized by teachers in pursuit of the school reform measures in which they are engaged.

APPENDIX II
TASK ANALYSIS – TEACHERS' WORK, TASKS AND ROLES

Developing a cohesive understanding of the core of teachers' work necessitates a deep understanding of the tasks teachers are expected to perform both within and outside of the school day. The term "teachers' work" is generically and routinely used in academic and professional settings to convey what teachers do and how they spend their time, yet, does little to contribute to a comprehensive understanding. The literature broadly defines teachers' work as a collection of technical and non-technical tasks that require both intellectual and emotional energy and skill" (Bruno et al, 2012). Tasks teachers may routinely perform include, but are not limited to: lesson planning, analyzing assessment data, providing group or one-on-one instruction, managing student behavior and attending to professional obligations (Table 2). These tasks are both complex and diverse, and likely to change, depending on the context and the institutional and policy environments. Valli and Buese (2007) have provided a framework employing five role categories that embody the many tasks teachers may be called upon to perform, irrespective of changing contexts, they are as follows: instructional, institutional, collaborative, learning, and relational (Table A1). These role categories are particularly instructive and applicable to SCORE analysis as they allow for a fulsome approach towards capturing all of the tasks that may occupy teachers' time, skill and energy. Together, these five role categories encompass the range of tasks that constitute teachers' work.

TABLE A1: TEACHER ROLE CATEGORIES (as defined by Valli and Buese (2007))

Instructional	Tasks performed in direct work with students in which learning is the primary goal (e.g. teaching).
Institutional	Tasks associated with the demands imposed by an external entity, such as district, state or federal government, in an attempt to create uniformity of practice (e.g. assessments).
Collaborative	Tasks that require teachers to work in groups with other teachers or district personnel. Collaborative tasks could be mandated by the district or school or could result from the nature of the tasks themselves (e.g., inclusion instruction).
Learning	Tasks that required teachers to develop new knowledge and skills to perform other role functions (e.g. professional development).
Relational	Tasks that require teacher interaction with students, parents, and other teachers in ways that cannot be standardized but that nurture and attend to the overall well being of students (e.g. parent-teacher conferences).

The synthesized list of teacher tasks and correlating examples delineated below (Table A2), are derived principally from a review of the literature on teachers' work and augmented with information generated through unstructured interviews with urban elementary school principals. These tasks and task examples are mapped against the five role categories identified in the literature on teachers' work. These tasks and task examples will be integrated into the SCORE and will help assess the criteria of time and energy.

TABLE A2: TEACHER TASKS

TASK CLASSIFICATION	TASK	TASK EXAMPLES
I	Presenting subject material	Teaching, curriculum implementation
I	Planning and developing lessons	Cognitive planning, chapter/unit lesson planning or design; resource gathering
I	Behavior Management	Managing student behavior
I	Assessing students' work	Analyzing student data, making student grouping or placement decisions
I	Providing extra help to students	One-on-one or small group tutoring
I, IN	Assessment	Administering teacher, curriculum, district or state based assessments
IN	Housekeeping/ Recordkeeping	Attendance, book/material distribution, student record-keeping, including report cards, grading
IN, R	Professional obligations	Assigned and/or volunteered non-teaching duties: hall duty, cafeteria duty, detention, school governance related activities (SSC, PTA, ELAC), IEPs, teacher leader activities
I	Classroom preparation	Activity set-up/break down; student seating/groupings; agenda
R	Communicating with parents and families	Communicating with parents – in person (parent-teacher conferences), over the phone, via email, etc.
L	Professional development	Curriculum implementation, ancillary program implementation (character development programs, bullying programs, etc.)
C	Grade Level/Team collaboration	Collaboration/Planning with peers and/or administration

I – Instructional; IN-Institutional; C- Collaborative; L-Learning; R-Relational

APPENDIX III

TASK ANALYSIS – THE INVISIBLE WORK OF TEACHING

Noted earlier, the invisible work of teaching, as it applies to the SCORE, is work teachers perform outside of the school day engaged in teaching or work-related tasks. The delineation of tasks, indicators and examples provided below are the combined result of a review of the literature on teachers' work and teachers' roles, as well as information generated through unstructured interviews with urban elementary school principals and elementary school teachers. Consultation with practitioners provided an enhanced understanding of the task classifications found within the literature, and contributed to a more a robust set of task examples incorporated within each classification. Essential to time analysis, these tasks will be utilized to determine the amount of time teachers devote to work-related tasks performed outside of the school day.

TABLE A3: INVISIBLE WORK TASKS

TASK CLASSIFICATION	INDICATORS: INVISIBLE WORK TASKS	TASK EXAMPLES
I	Planning and developing lessons	Cognitive planning, chapter/unit lesson planning or design; resource gathering
L	Professional growth	Pursuing an initial or supplemental credential; pursuing an advanced degree; participating in district coordinated professional development
I	Classroom preparation	Activity set-up/break down; student seating/groupings; agenda planning/writing
L	Professional development	School-based or district-coordinated (after/before school)
IN	Housekeeping/recordkeeping	Student record-keeping, including report cards, grading
I	Providing extra help to students	One-on-one or small group tutoring; participating in an after school tutorial program
R	Parent meetings	Communicating with parents – (e.g., parent-teacher conferences)
IN, C, L	Teacher Leader duties	Prepping for grade level meetings (gathering materials, photocopying, etc.); researching professional articles for discussion or distribution
C	Collaboration/Planning with peers and/or administration	Grade Level/Team collaboration

I – Instructional; IN-Institutional; C- Collaborative; L-Learning; R-Relational

APPENDIX IV

ENERGY and SKILL ANALYSIS

The analysis of *energy* and *skill* pertains strictly to the impact of school reform efforts on teachers. Moving beyond an understanding of the time and energy demands of teachers' work, both within and outside of the school day, the energy and skill analysis is designed to capture the energy and skill teachers have at their disposal to engage in reform-related work (e.g. data collection, curricular alignment and integration, coaching from specialists). To accomplish this, I will apply the framework presented in the literature on teachers' work, specifically as it relates to teachers' roles and the ways in which their roles have changed and been impacted by reform efforts. This particular body of research identifies three fundamental ways in which teachers' roles and the tasks they perform are affected by school change efforts. Teachers' roles may be intensified, expanded, or increased with the introduction of school reform related tasks into their contexts. To illustrate the concepts of role intensification, expansion and increase, I have provided a table mapping each concept with the literature-based definitions and measurable indicators (Table A4). The measurable indicators are principally derived from the literature on school reform and supplemented with information generated from unstructured interviews with urban elementary school leaders. Leveraging these resources, I was able to draw a clear connection between the work frequently associated with school reform initiatives and the literature-based definitions of each of the ways teachers' roles are impacted by change efforts.

APPENDIX V

TABLE A4: ENERGY AND SKILL ANALYSIS

Framework	Operational Definitions (Literature Based)	Measurable Indicators
Role Intensification (R-INT)	• A heightened responsibility for teaching and learning that is driven by classroom-level policy directives (e.g., ongoing assessments, data collection, and data management for individual students). • A process that occurs when teachers are expected to respond to greater pressures and to comply with multiplying innovations under conditions that are at best stable and at worst deteriorating. • Focus is on intensified work *within* the classroom.	**Programs, Reforms and Classroom Level Policy Directives** • # Programs devoted to RLA (core and supplemental/support) • # Programs devoted to math (core and supplemental/support) • School/district programs (e.g., bullying, character, discipline) • Student assessment (pretests/post-tests) • Data collection • Data management • Program/curriculum integration
Role Expansion (R-EXP)	• Increased scope of teacher responsibility for work outside the classroom that requires collaboration with others (teachers, specialists, district or other personnel). • Collaboration can assist teachers in marshaling resources, conserving energy, and understanding requirements and demands, or it can be used as a way to promote the implementation of "dubious policy ends" resulting in the consumption of teachers' energy and professional ideals. • Focus is on expanded responsibilities *beyond* the classroom.	**Expectations: Collaboration, Planning, Translating** • Collegial planning • Lesson/Unit planning • Translating PD into teaching practices • Working with specialists, other teachers, district personnel • Vertical articulation
Role Increase (R-INC)	• New tasks and heightened expectations. • Teachers must spend more time outside the classroom learning, planning and justifying their actions to others. • The sheer number of tasks can increase as teachers are asked to do more things and do so with an increasing level of sophistication.	**Workshops, Trainings and Meetings** • Learning new content • Learning new pedagogy • Summer trainings on new school/district initiatives • After school PD/training on new school/district initiatives • Curriculum alignment and integration • Curriculum pacing

APPENDIX VI
PRINCIPAL INTERVIEW PROTOCOL
Semi-Structured

Introduction: Thank you for agreeing to participate in this research project on understanding teachers' work as it relates to school reform initiatives. Part of the research will consist of an interview with the school administrator to get an overall sense of the school (staffing, programs, partnerships/initiatives, and curriculum), the second part of the research will consist of an focus group with teacher leaders, focused on the same elements. Finally, there will be a brief survey for classroom teachers and the school administrator to fill out. All information will be compiled in the aggregate, and will be confidential. There will be no discernible descriptions used of the school, school district, administrators or teachers.

I. School Demographics and Organization

TOPIC	QUESTION TOPICS	RESPONSE
Staffing	• # Teachers • # New Teachers	
Staffing	# Fully Credentialed Teachers	
School Organization	Have you experienced any changes in teaching staff (e.g., retirement, new teachers, teachers changing grade levels)?	
Staffing	Are all teaching positions filled? • Any substitutes, if so, what grade levels and how long?	
Invisible Work	Are any of your teachers pursuing additional or initial credentialing? Professional degrees? Ongoing professional development?	
Goals & Expectations	What are the district's and school's goals & expectations for learning?	
Goals & Expectations / Instructional Program Coherence	To what extent have coordination and focus of the school's instructional program changed in the past one to two years at your school?	
Initiatives & Partnerships	How many initiatives and partnerships does the school have? • What areas do they impact (e.g. school wide, RLA, Math) • When were they introduced to the school? • What do they require or expect from teachers?	
Initiatives & Partnerships	Are there any significant changes from previous years with respect to partnerships and initiatives?	
Curriculum (RLA)	What/how many curricular programs are used for teaching RLA (core, intervention, support)? • When were they introduced? • How are teachers integrating them? • What is the feedback from teachers?	
Teacher Training	Have all teachers been trained in the relevant school programs for their grade/content area (core, support, supplemental, intervention programs)?	
Curriculum (Math)	What/how many curricular programs are used for teaching math (core, intervention, support)? • When were they introduced? • How are teachers integrating them? • What is the feedback from teachers?	

Resources	What resources are in place to support teachers and programs (money, personnel time)?	
Special Programs	Does your school host any special programs (e.g. reading labs, character development)? • What are the expectations for teachers concerning these programs?	
Professional Learning	What professional learning activities are new for teachers this year? • Are they planning differently (cognitive planning vs. planning for prepackaged programs), organizing their classrooms differently, classroom/student set-up), etc.?	
SKILLS/ KNOWLEDGE	What (new) skills are teachers acquiring or expected to acquire in order to implement special programs or new curriculum/frameworks?	
Principal perception: ENERGY & CHALLENGE	• How do you think the overall "work of the school" (initiatives, goals/expectations, staffing patterns, special programs, school culture, expectations for skill development), are impacting teachers' energy levels?	
Principal perception: TIME BUDGETS	How is the overall "work of the school" impacting teachers' time commitments? • Do they have enough time to do everything that is expected of them? • Have they expressed concerns regarding the commitments required of them? If so, what terms or expressions do they use to relay these concerns?	
Principal perception: OVERLOAD	Overload - If you were to make a judgment as to whether or not your school, as a whole, was in a state of overload – what would your determination be- Time? Skill & Knowledge? Personal Energy & Level of Challenge?	

APPENDIX VII
TEACHER FOCUS GROUP PROTOCOL
Semi-Structured

Introduction: **Thank you for agreeing to participate in this research project on understanding teachers' work as it relates to school reform initiatives. Part of the research consists of a focus group with teachers to get an overall sense of the school programs, climate and overall workload. Finally, there will be a brief survey for classroom teachers and the school administrator to fill out. All information will be compiled in the aggregate, and will be confidential. There will be no discernible descriptions used of the school, school district, administrators or teachers**

Framework	Focus of Discussion	Measurable Indicators	Question Prompts
Role Intensification (R-INT)	Focus is on intensified work *within* the classroom.	**Programs, Reforms and Classroom Level Policy Directives** • # Programs devoted to RLA (core and supplemental/support) • # Programs devoted to math (core and supplemental/support) • School/district programs (e.g., bullying, character, discipline) • Student assessment (pretests/post-tests) • Data collection • Data management • Program/curriculum integration	How would you describe the program(s) used to teach RLA (#, complexity, time, new knowledge needed)? How would you describe the program(s) used to teach Math (#, complexity, time, new knowledge needed)?
Role Expansion (R-EXP)	Focus is on expanded responsibilities *beyond* the classroom.	**Expectations: Collaboration, Planning, Translating** • Collegial planning • Lesson/Unit planning • Translating PD into teaching practices • Working with specialists, other teachers, district personnel • Vertical articulation	What are the time, stress and knowledge implications of these expanded responsibilities?
Role Increase (R-INC)	Focus is on new tasks and heightened expectations.	**Workshops, Trainings and Meetings** • Learning new content • Learning new pedagogy • Summer trainings on new school/district initiatives • After school PD/training on new school/district initiatives • Curriculum alignment and integration • Curriculum pacing	What are district and/or school expectations in…?

APPENDIX VIII

My School SCORE – Summary Sheet: Development Site

Instructions for using the SCORE Summary Sheet

1. Transfer information from all Individual SCORE sheets, including the contextual information provided on the last page of the SCORE, onto the Summary Sheet.
2. Look for patterns or trends across the school, as well as individual teacher data, with regard to time budgets, activities with high skill and knowledge demands and overwhelming levels of challenge.
3. Identify activities and resources that can be leveraged to reduce the levels of overload.

Contextual Information		TIME Budget	SKILL/KNOWLEDGE DEVELOPMENT		PERSONAL ENERGY/ LEVEL OF CHALLENGE	
Grade level(s)	Years of Experience	Time available for School & Classroom Improvement Activities *after* accounting for Regular Duties & Recurring Activities *Example:* —150 min *or* + 35min	I. Regular Duties & Recurring Professional Activities **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	II. School & Classroom Improvement Activities **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	I. Regular Duties & Recurring Professional Activities **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*	II. School & Classroom Improvement Activities **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4- Overwhelming*
3rd/4th	1st year	-820	Very Much	Very Much	Challenging	Overwhelming
5t/6th	1st year	-735	Very Much	Very Much	Overwhelming	Overwhelming
1st	3-4 years	-812	Some	Some	Stressful	Challenging
3rd	9 (+)	-271	Some	Some	Easy	Easy
5th	3-4 years	-664	Much	Much	Challenging	Challenging
4th	1st year	-750	Very Much	Very Much	Overwhelming	Stressful
2nd	9 (+)	-215	Little	Some	Easy	Challenging
2nd	9 (+)	-535	Some	Much	Challenging	Stressful
4th/5th	7-8 years	-810	Much	Much	Challenging	Overwhelming

APPENDIX IX

My School SCORE – Summary Sheet: Authentication Site

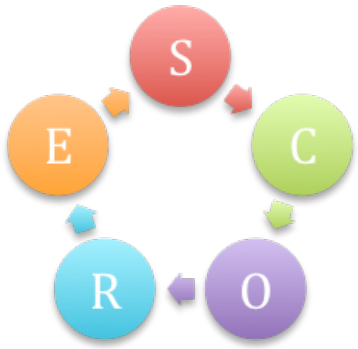
Instructions for using the SCORE Summary Sheet

1. Transfer information from all Individual SCORE sheets, including the contextual information provided on the last page of the SCORE, onto the Summary Sheet.
2. Look for patterns or trends across the school, as well as individual teacher data, with regard to time budgets, activities with high skill and knowledge demands and overwhelming levels of challenge.
3. Identify activities and resources that can be leveraged to reduce the levels of overload.

Contextual Information		TIME Budget	SKILL/KNOWLEDGE DEVELOPMENT		PERSONAL ENERGY/ LEVEL OF CHALLENGE	
Grade level(s)	Years of Experience	Time available for School & Classroom Improvement Activities *after* accounting for Regular Duties & Recurring Activities ***Example:*** —150 min *or* + 35min	I. Regular Duties & Recurring Activities **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	II. School & Classroom Improvement Activities **Scale:** *1-Little; 2-Some; 3-Much; 4-Very Much*	I. Regular Duties & Recurring Professional Activities **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*	II. School & Classroom Improvement Activities **Scale:** 1-*Easy; 2-Challenging; 3-Stressful; 4-Overwhelming*
K	9(+)yrs	-815 min	Little	Little	Easy	Easy
3RD	3-4yrs	(not provided)	Some	Much	Challenging	Challenging
4TH/ 5TH	1 year	-235 min	Much	Much	Stressful	Challenging
K	7-8 yrs	-815 min	Little	Little	Easy	Easy
3RD/ 4TH	7-8 yrs	-535 min	Little	Little	Easy	Challenging
3	5-6 yrs	-235 min	Some	Some	Easy	Challenging
6	9 (+)yrs	-334 min	Little	Some	Easy	Easy
5	9(+)yrs	-795 min	Little	Little	Easy	Challenging
5	9(+)yrs	-821 min	Little	Little	Easy	Challenging
2	7-8 yrs	-244 min	Little	Some	Easy	Challenging
2	9(+)yrs	-815 min	Little	Little	Easy	Easy
1	7-8 yrs	- 545 min	Some	Some	Easy	Challenging

Note: Highlighted rows indicate teacher participation in the SCORE debrief session.

APPENDIX X: SCORE for the AUTHENTICATION SITE



SCORE - SCHOOL CAPACITY & OVERLOAD REVIEW

A Classroom and School Level Tool to identify…*What's on Your Plate?*

Nowadays most schools are expected to improve continuously. Improvement activities can be intensive in time, new skill development, and personal energy. Sometimes we take on new commitments to the point of causing overload without us noticing it.

The School Capacity and Overload Review (SCORE) is a brief questionnaire designed to help you and your school find out *what's on your plate* with regard to the time, skill and demands of the tasks you are expected to carry out at this moment. It may help discover school improvement overload and avoid it in the future.

Thank you for participating in this research project to understand teachers' work as it relates to school reform initiatives.

Thank you,

Liz Baham

I. REGULAR WORK DUTIES AND RECURRING PROFESSIONAL ACTIVITIES	For the tasks listed below, please assess as accurately as possible…		
	How much new knowledge and skills development do you need to carry out the task with high competence? SCALE: 1- Little 2- Some 3- Much 4- Very Much * *Leave blank if not applicable*	How challenging is each task for you personally? SCALE: 1- Easy 2- Challenging 3- Stressful 4- Overwhelming **Leave blank if not applicable*	How many *minutes per week* do you need to complete the task? **Leave blank if not applicable*
1. CLASSROOM INSTRUCTION			
Reading/Language Arts			
Math			
English Language Development (ELD)			
Physical Education (PE)			
Science			
*Other (please identify): _____			
2. LESSON PLANNING			
Creating lesson plans			
Identifying/photocopy materials			
Getting materials for projects/lessons/experiments			
*Other (please identify): _____			
3. SOCIAL-EMOTIONAL SUPPORT OUTSIDE OF CLASS			
Discipline/behavior management			
Interfacing with school counselors/ leadership/administration			
Parental contact re: student behavior			
*Other (please identify): _____			
*Other (please identify): _____			
4. COLLABORATION & PLANNING			
Collegial planning w/grade level team			
Working with specialists or coaches			
*Other (please identify): _____			
*Other (please identify): _____			
5. ASSESSMENT & DATA			
Administering assessments			
Scoring assessments			
*Other (please identify): _____			
*Other (please identify): _____			
6. TEAM AND COMMITTEE WORK			
Grade level chair/Leadership team			
School/district committees			
*Other (please identify): _____			
*Other (please identify): _____			
7. EXTRA CURRICULAR SCHOOL ACTIVITIES			
Enrichment activity leader/volunteer			
After school events (e.g., back to school night, family math/reading nights)			
*Other (please identify): _____			
*Other (please identify): _____			
8. RECURRING PROFESSIONAL ACTIVITIES			
Credential or degree program			
*Other (please identify): _____			
*Other (please identify): _____			
	Write down the rating assigned most often ___	**Write down the rating assigned most often _**	**Total Minutes__**

II. SCHOOL & CLASSROOM IMPROVEMENT ACTIVITIES	For the tasks listed below, please assess as accurately as possible…		
	How much new knowledge and skills development do you need to carry out the task with high competence? SCALE: 1- Little 2- Some 3- Much 4- Very Much * Leave blank if not applicable	How challenging is each task for you personally? SCALE: 1- Easy 2- Challenging 3- Stressful 4- Overwhelming *Leave blank if not applicable	How many *minutes per week* do you need to complete the task? *Leave blank if not applicable
1. PROFESSIONAL DEVELOPMENT- WORKSHOPS – TRAININGS			
Skills and strategy development			
Core curricular programs			
School-based programs or initiatives (e.g. character building, bullying)			
District-coordinated trainings (e.g. Common Core, data team training)			
*Other (please identify): _____			
*Other (please identify): _____			
2. NEW PROGRAMS & ORGANIZATIONAL STRUCTURES			
Learning about new core curricular programs			
Implementing new core curricular programs			
Learning about new ancillary/supplementary curricular programs			
Implementing new ancillary/supplementary curricular programs			
Communicating with colleagues about new programs			
Learning new classroom structures and methods of delivering instruction (e.g. small group)			
*Other (please identify): _____			
*Other (please identify): _____			
	Write down the rating assigned most often ____	**Write down the rating assigned most often _____**	**Total Minutes___**

Individual SCORE Sheet
What's on Your Plate?

A. Calculating My Time Budget

Weekly contractually minutes you are obligated to work: ___minutes (includes instructional time and preparation time)

1. **Subtract:** the total time calculated in **Regular Work Duties & Recurring Professional Activities from ___ minutes.**

1,515 minutes - _____ Reg. & Recurring Activities minutes = _____available minutes.

This value equals the total amount of time you have available *after* fulfilling these duties.

2. **Next, subtract** the total amount of time calculated in **School & Classroom Improvement Activities** from the above value:

_____**Available Minutes -** _____School & Classroom Improvement minutes = ____minutes.

This value is your TIME BUDGET - the amount of time you have left after ALL work tasks have been fulfilled.

MY TIME BUDGET (choose one):

_____ **Time Surplus (+).** I have a time SURPLUS! I have time to spare AFTER fulfilling my work obligations!

_____ **Time Deficit (—).** I am OVERLOADED! I have more work to do than I have time available!

B. Demand for Skill & Knowledge Development

RESULTS

I. Regular Work Duties & Recurring Professional Activities: ***Insert most frequent rating given***___

II. School & Classroom Improvement Activities: ***Insert most frequent rating given*** ____

- If your two ratings are **identical,** this is your SCORE_____
- If your two ratings are **one point apart,** use the most appropriate rating of the two, this is your SCORE___
- If your two ratings are **two or more points apart,** choose the rating in the middle, this is your SCORE____

Analyzing my SCORE

1 – ***LITTLE*** I have relatively little need for skill and knowledge development to fulfill the tasks I am expected to perform.

2 – ***SOME*** I have specific needs for skill and knowledge development in some, but not all aspects of my work.

3 – ***MUCH*** I have a considerable need for skill & knowledge development in order to feel more confident in carrying out my work tasks.

4 – ***VERY MUCH*** This is a steep learning curve! I need more time and support to develop the skills and knowledge necessary to confidently carry out my work tasks.

C. Level of Challenge

RESULTS

I. Regular Work Activities & Recurring Professional Activities: ***Insert most frequent rating given*** __

II. School & Classroom Improvement Activities**:** ***Insert most frequent rating given*** ____

- If your two ratings are **identical**, this is your SCORE_____
- If your two ratings are **one point apart,** pick the most appropriate rating of the two, this is your SCORE__
- If your two ratings are **two or more points apart,** choose the rating in the middle, this is your SCORE___

Analyzing my SCORE

1 – Overall, my work tasks are ***EASY!*** I can accomplish most tasks with relatively little effort.

2 – I find some work tasks ***CHALLENGING,*** but I am prepared to meet these challenges head on!

3 – Work is rewarding, but sometimes ***STRESSFUL,*** yet I am determined to overcome all obstacles.

4 – The amount of energy and the degree of challenge I experience in completing my work is ***OVERWHELMING,*** but I'm working through it and doing the best I can!

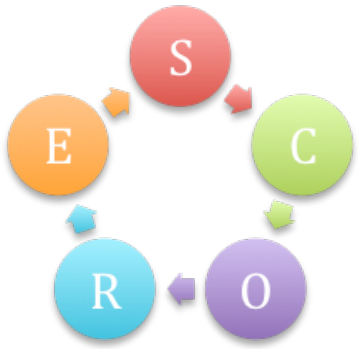
CONTEXTUAL INFORMATION

These questions are about your experience and your current teaching assignment. Please choose the appropriate response.

RESPONSES TO THESE QUESTIONS ARE OPTIONAL

How many years have you worked as a teacher? ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
How many years have you taught at THIS school? ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
# Years teaching in your <u>current</u> <u>grade level</u> ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
Current grade level(s) ***Check all that apply*:**	**Transitional Kindergarten (TK) _____** **Kindergarten_____** **1st Grade_____** **2nd Grade_____** **3rd Grade_____** **4th Grade_____** **5th Grade_____** **6th Grade _____** **I am not a classroom teacher_____** **I am a substitute teacher_____**

APPENDIX XI: SCORE for the DEVELOPMENT SITE



SCORE - SCHOOL CAPACITY & OVERLOAD

A Classroom and School Level Tool to identify…*What's on Your Plate?*

Nowadays most schools are expected to improve continuously. Improvement activities can be intensive in time, new skill development, and personal energy. Sometimes we take on new commitments to the point of causing overload without us noticing it.

The School Capacity and Overload Review (SCORE) is a brief questionnaire designed to help you and your school find out *what's on your plate* with regard to the time, skill and demands of the tasks you are expected to carry out at this moment. It may help discover school improvement overload and avoid it in the future.

Thank you for participating in this research project to understand teachers' work as it relates to school reform initiatives.

Thank you,

Liz Baham

I. REGULAR WORK DUTIES AND RECURRING PROFESSIONAL ACTIVITIES	For the tasks listed below, please assess as accurately as possible…		
	How much new knowledge and skills development do you need to carry out the task with high competence? SCALE: 1- Little 2- Some 3- Much 4- Very Much *Leave blank if not applicable	How challenging is each task for you personally? SCALE: 1- Easy 2- Challenging 3- Stressful 4- Overwhelming *Leave blank if not applicable	How many *minutes per week* do you need to complete the task? *Leave blank if not applicable
1. CLASSROOM INSTRUCTION			
Reading/Language Arts			
Math			
English Language Development (ELD)			
*Other (please identify): _____			
*Other (please identify): _____			
2. LESSON PLANNING			
Creating lesson plans			
Identifying/photocopy materials			
*Other (please identify): _____			
*Other (please identify): _____			
3. SOCIAL-EMOTIONAL SUPPORT OUTSIDE OF CLASS			
Discipline/behavior management			
Interfacing with school counselors/ leadership/administration			
Parental contact re: student behavior			
*Other (please identify): _____			
*Other (please identify): _____			
4. COLLABORATION & PLANNING			
Collegial planning w/grade level team			
Working with specialists or coaches			
*Other (please identify): _____			
*Other (please identify): _____			
5. ASSESSMENT & DATA			
Administering assessments			
Scoring assessments			
*Other (please identify): _____			
*Other (please identify): _____			
6. TEAM AND COMMITTEE WORK			
Grade level chair/Leadership team			
School/district committees			
*Other (please identify): _____			
*Other (please identify): _____			
7. EXTRA CURRICULAR SCHOOL ACTIVITIES			
Enrichment activity leader/volunteer			
After school events (e.g., back to school night, family math/reading nights)			
*Other (please identify): _____			
*Other (please identify): _____			
8. RECURRING PROFESSIONAL ACTIVITIES			
Credential or degree program			
*Other (please identify): _____			
*Other (please identify): _____			
	Write down the rating assigned most often ___	Write down the rating assigned most often __	Total Time ____(Minutes)

II. SCHOOL & CLASSROOM IMPROVEMENT ACTIVITIES	For the tasks listed below, please assess as accurately as possible…		
	How much new knowledge and skills development do you need to carry out the task with high competence? SCALE: 1- Little 2- Some 3- Much 4- Very Much * Leave blank if not applicable	How challenging is each task for you personally? SCALE: 1- Easy 2- Challenging 3- Stressful 4- Overwhelming *Leave blank if not applicable	How many *minutes per week* do you need to complete the task? *Leave blank if not applicable
1. PROFESSIONAL DEVELOPMENT- WORKSHOPS – TRAININGS			
Skills and strategy development			
Core curricular programs			
School-based programs or initiatives (e.g. character building, bullying)			
District-coordinated trainings (e.g. Common Core, data team training)			
*Other (please identify): _____			
*Other (please identify): _____			
2. NEW PROGRAMS & ORGANIZATIONAL STRUCTURES			
Learning about new core curricular programs			
Implementing new core curricular programs			
Learning about new ancillary/supplementary curricular programs			
Implementing new ancillary/supplementary curricular programs			
Communicating with colleagues about new programs			
Learning new classroom structures and methods of delivering instruction (e.g. small group)			
*Other (please identify): _____			
*Other (please identify): _____			
	Write down the rating assigned most often ____	Write down the rating assigned most often _____	Total Minutes___

Individual SCORE Sheet
What's on Your Plate?

A. Calculating My Time Budget

Weekly contractually minutes you are obligated to work: _____ minutes

1. **Insert the weekly minutes you are contractually obligated to work** _____minutes

2. **Subtract** the total amount of time from **Regular Work Duties & Recurring Professional Activities** _____minutes

This value equals the total amount of time you have available *after* fulfilling these duties: ____minutes

3. **Next, subtract** the total amount of time spent in **School & Classroom Improvement Activities** from the above value __

This is your TIME BUDGET - the amount of time you have left after ALL work tasks have been fulfilled: ___minutes

MY TIME BUDGET (choose one):

_____ **Time Surplus (+).** I have a time SURPLUS! I have time to spare AFTER fulfilling my work obligations!

_____ **Time Deficit (—).** I am OVERLOADED! I have more work to do than I have time available!

B. Demand for Skill & Knowledge Development

RESULTS

I. Regular Work Duties & Recurring Professional Activities: *Insert most frequent rating given*__

II. School & Classroom Improvement Activities: *Insert most frequent rating given* _____

- If your two ratings are **identical,** this is your SCORE_____
- If your two ratings are **one point apart,** use the most appropriate rating of the two, this is your SCORE__
- If your two ratings are **two or more points apart,** choose the rating in the middle, this is your SCORE___

Analyzing my SCORE

1 – *LITTLE* I have relatively little need for skill and knowledge development to fulfill the tasks I am expected to perform.

2 – *SOME* I have specific needs for skill and knowledge development in some, but not all aspects of my work.

3 – *MUCH* I have a considerable need for skill & knowledge development in order to feel more confident in carrying out my work tasks.

4 – *VERY MUCH* This is a steep learning curve! I need more time and support to develop the skills and knowledge necessary to confidently carry out my work tasks.

C. Level of Challenge

RESULTS

I. Regular Work Activities & Recurring Professional Activities: *Insert most frequent rating given* __

II. School & Classroom Improvement Activities**:** *Insert most frequent rating given* ____

- If your two ratings are **identical**, this is your SCORE_____
- If your two ratings are **one point apart,** pick the most appropriate rating of the two, this is your SCORE___
- If your two ratings are **two or more points apart,** choose the rating in the middle, this is your SCORE____

Analyzing my SCORE

1 – Overall, my work tasks are *EASY!* I can accomplish most tasks with relatively little effort.

2 – I find some work tasks *CHALLENGING,* but I am prepared to meet these challenges head on!

3 – Work is rewarding, but sometimes *STRESSFUL,* yet I am determined to overcome all obstacles.

4 – The amount of energy and the degree of challenge I experience in completing my work is *OVERWHELMING,* but I'm working through it and doing the best I can!

CONTEXTUAL INFORMATION

These questions are about your experience and your current teaching assignment. Please choose the appropriate response.

RESPONSES TO THESE QUESTIONS ARE OPTIONAL

How many years have you worked as a teacher? ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
How many years have you taught at THIS school? ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
# Years teaching in your <u>current</u> <u>grade level</u> ***Circle one:***	**1st year 2nd year 3-4yrs 5-6yrs 7-8yrs 9(+)yrs**
Current grade level(s) ***Check all that apply*:**	**Transitional Kindergarten (TK) _____** **Kindergarten_____** **1st Grade_____** **2nd Grade_____** **3rd Grade_____** **4th Grade_____** **5th Grade_____** **6th Grade _____** **I am not a classroom teacher_____** **I am a substitute teacher_____**