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Key Experiences and Non-monetary Resources Impacting Stakeholder Satisfaction, Growth, and Effectiveness in Educational Settings

Michelle Farell
University of Missouri-St. Louis, michelle.farell@gmail.com

Claire Crapo
University of Missouri-St. Louis, ccrapo34@gmail.com

Skyler Wiseman
University of Missouri-St. Louis, skylerha@gmail.com

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Michelle Farell

M.Ed. University of Missouri–St. Louis, 2017
M.A. Wheaton College, 2014
B.A Wheaton College, 2013

Claire Crapo

M.Ed. University of Missouri-St. Louis, 2012
B.A. Sewanee, University of the South, 2009

Skyler Wiseman

M.A.T. Webster University, 2006
B.A. Western State College, 1977

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Dissertation Committee

Phyllis Balcerzak, Ph.D.

Keith Miller, Ph.D.

Theresa Coble, Ph.D.

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Collective Abstract

Ensuring stakeholder satisfaction and effective utilization of non-monetary assets is critical to the overall health of an educational institution (Berger, Alcalay, Torretti, & Millicie, 2011). This body of work encases three dissertations joined by a common theme: key factors impacting the effectiveness of current educational systems. The overarching question anchoring this theme is: What non-monetary resources and experiences provide maximum positive impact on educational stakeholders? The researchers developed a conceptual framework for the priorities needed to maximize existing resources in educational landscapes.

In these studies, the researchers investigated the resource utilization and academic outputs of two elementary schools, the experiences of female leaders in education, and the impact of various types of professional development on teachers. Through these three studies, the following trends emerged: a) discrepancies along gender lines negatively impact stakeholder connectedness, b) higher levels of adaptability transfer to increased levels of teacher efficacy, and c) strategic leveraging of available resources leading to positive student outputs. Our findings illuminated the complexities facing contemporary educational institutions, while also offering key priorities to facilitate positive and sustainable transformations in academia.

Collective Introduction

It has been no secret that urban education presents a series of multi-faceted complexities that contribute to the current educational climate, the academic achievement of students, and the effectiveness and personal satisfaction of educational stakeholders (Condron & Roscigno, 2003). In this project, the team of three researchers sought to

address the specific experiences and resources that contributed to the overall well-being of a school district, including the satisfaction of its schools' employees and its students' academic success. The overarching question guiding their work was: What non-monetary resources and experiences provided maximum positive impact on educational stakeholders?

In order to effectively address this topic, the team took aim to find answers to several questions essential to the comprehensive development of educational sites and stakeholders. Specifically, they were curious to determine:

1. To what extent does a single urban school district display variation in non-monetary resource allocations, such as community involvement, teacher and leadership experience levels, and behavior supports? In what ways do differing levels of support impact the academic output of students?

2. How do inequitable experiences of women impact the perceptions that women have regarding their productivity and job satisfaction?

   a. What is the relationship between compensation negotiations and productivity in the workplace?

   b. What is the connection between salary negotiations and workplace connection?

   c. How do female leaders approach negotiation conversations with managers?

3. What kind of experiences do teachers identify that they need to become the responsive, innovative and creative members of an educational community?

   a. How can professional development reflect the variation in backgrounds of teachers in order for all teachers to reach their potential as innovative, creative educators?

b. What professional learning experiences do teachers who have been in the professional three years or more identify as being essential in their growth?

Through comparison and analysis of existing non-monetary resource distribution and utilization and key stakeholder experiences within educational institutions, the researchers sought to determine critical components in achieving strong student growth, educator commitment, and overall institutional effectiveness. Teacher development, community partnerships, leadership support, compensation experiences, and targeted, specific case-based decisions regarding nonmonetary assets were also some of the factors explored to determine their influence on overall success within the educational institutions (Organizations for Economic Cooperation and Development, 2017). The team of researchers chose to define the term *non-monetary resources* as assets and leadership interactions with stakeholders available to all educational institutions that were not explicitly financial (OECD, 2017). These non-monetary resources included assets, such as teacher experience levels, staff collegiality, community involvement, distribution of responsibilities between men and women and professional development opportunities (OECD, 2017).

The team's research also aimed to highlight different schools and stakeholders have differing needs, as well as differing assets. Organizations can benefit from a candid analysis of what specific nonmonetary assets are available and how those assets are leveraged to support all stakeholders. Educational institutions must develop targeted strategies to maximize asset utilization and benefits. These assets can be used to further leader and teacher effectiveness and student outputs. Collectively, the research not only highlighted the multitude of factors influencing educator and student growth, but sought

to empower educational institutions to leverage their specific assets and non-monetary resources in innovative ways.

The team's combined research was anchored in exploring the effectiveness of current educational systems. The individual pieces of this body of work analyze differing aspects within this common theme, approaching the problem through the lens of a comparative case study of two elementary schools, a qualitative analysis regarding the experiences of women in the workplace, and a multi-level study regarding the effectiveness of various types of professional development. Through this multi-faceted approach, this work offered a robust and nuanced picture of the challenges faced by current educational institutions, as well as informed, grounded suggestions for high-impact strategies to maximize student learning and educator satisfaction.

A Comparative Analysis of the Impact of School and Community Assets on Student

Performance within a Single Urban School District

Farell, Michelle H.

Fall 2019

M.ED. University of Missouri, St. Louis, 2017

M.A., Wheaton College, 2014

B.A., Wheaton College, 2013

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Chapter One: Introduction

Dominant educational narratives have defined urban education not by its successes, but by its perceived deficits (Borrero & Sanchez, 2017). In discussing educational challenges, it has been no secret that successful urban education presents a series of unique challenges, and that inherent aspect of urban school districts present scenarios that might not necessarily impact non-urban school districts (Sirin, 2005). Dense populations, limited funding, and diverse socioeconomic statuses make for a wide array of circumstances to navigate (Sirin, 2005). In particular, the idea that urban school districts face different challenges than their less densely populated counterparts have garnered attention due to academic achievement disparities between urban and county schools (Sirin, 2005).

Although the United States has long lauded the ideas of human rights and equality, it has fallen under intense scrutiny for the continued educational achievement gap between students of low socioeconomic status (SES) and their more socio-economically affluent peers (DiGangi, 2017). Investigations as to root causes of this issue often focus on funding distribution, with school monetary resources held as the pivotal, visible constant that most drastically impacts academic achievement (Condron & Roscigno, 2003; DiGangi, 2017; Necochea & Cline, 1998). While this research highlighted the problematic nature of resource allocation amongst school districts, less is known about the distribution of resources within a single school district. This is especially relevant for urban school districts who serve densely populated areas with high levels of variation within their communities—translating to high levels of variations

within individual schools (DiGangi, 2017). The departure from the more homogenous structure of nonurban districts warrants analysis regarding resource allocation and equity.

However, funding allocation and budgeting protocols are but one element in a complex system leading to student development and growth (Darden & Cavendish, 2012). Even with funding distribution remaining constant, the intricate circumstances and differing landscapes of individual schools across a single district can result in vastly different experiences for students (Darden & Cavendish, 2012). Intense variations within the economic climate of urban school districts make for complex discussions when allocating resources, and school administrators, oftentimes, have been forced to appeal to a variety of sources to meet their schools' needs (Rubenstein, 1998). This is where contemporary research has now been focused—on the non-monetary resources available to school sites. Approaching resource distribution in this way acknowledges that education cannot be divorced from the setting in which it occurred (OECD, 2017). As the OECD (2017) explained, education occurs within communities with nuanced histories and unique pre-existing assets. These settings come with both challenges and benefits (OECD, 2017). Analyzing the existing resources both within and around a school site can provide insight into the expected growth trajectories of students (Auerbach, 2007).

In an effort to maintain the dignity of urban communities and to showcase their strengths and unique capabilities, asset mapping has been utilized as a powerful culturally relevant pedagogical tool (Griffin & Farris, 2010; Villanueva, Broad, Gonzalez, Ball-Rokeach, & Murphy, 2016). By developing a catalogue of resources available to individual schools' sites, direction on next steps and high leverage resources emerged (Griffin & Farris, 2010). This strength-based approach has focused on the idea that all

communities contain positive attributes, and there were ways to leverage these attributes to further advance the communities (Villanueva et al., 2016). By extension, these community assets have been utilized within school settings to further the goals of the schools and to strengthen the experience of the schools' students (Griffin & Farris, 2010). Additionally, the process has been used to argue that nonmonetary resources outside of those allocated by a school district's school board have impacted the academic success of students. Through comparing the available nonmonetary resources of two differing urban schools within a Midwestern, urban school district, a frank assessment of assets compared to academic results provided a more comprehensive picture of a school's challenges and successes, as well as a blueprint for next steps.

Chapter Two: Literature Review

Due to the multi-faceted nature of this study, a literature review was conducted to seek prior research relevant to the topic of nonmonetary resource allocation in educational settings, school-community partnerships, and place-based learning initiatives, and as asset mapping as culturally responsive pedagogy.

Nonmonetary Resource Allocations

Myriad studies have explored the impact of socioeconomic status on student academic achievement levels (Caldas & Bankston, 1997; U.S. Department of Education, 2016; Sirin, 2005; White, 1982). Schools serving students with lower socioeconomic statuses have traditionally underperformed their more affluent counterparts (DiGangi, 2017). However, the reasoning between this discrepancy has remained contested (DiGangi, 2017). Some researchers argued that increased funding leads to increased academic gains (DiGangi, 2017)**,** while others maintained that monetary allocations were not the primary indicator of academic performance (Hanushek, 2006). In their book, Evers and Clopton (2006) argued:

> Districts having adequate funding according to the methods presented to the courts might even do worse than districts with inadequate funding….The simplest summary is that no currently available evidence shows that past judicial actions about school finance—either related to equity or to adequacy—have had a beneficial effect on student performance." (p. xxiii)

Thus, this study proposed a departure from analyzing funding as the primary lever impacting students' academic performances, instead of focusing on those variables that combined to provide levels of support around students that led to academic gains (Evers

& Clopton, 2006). Current literature has indicated there were discrepancies in nonmonetary resources across school districts depending schools' locations or tax bases (Darden & Cavendish, 2017). However, there were even less known about discrepancies even in the same districts (Darden & Cavendish, 2017). According to their 2017 study, researchers, Darden and Cavendish, found these occurrences were more often urban in nature, and that "the inequities that result were not necessarily caused by purposeful bias, but may have resulted from a simple lack of awareness and the absence of a strenuous focus on resource equity among policy makers, school administrators, and parents" (p. 63).

One of these nonmonetary variables that has an impact on students' academic success has been the involvement of parents in their children's schools (Anderson & Minke, 2007). A recent study by Dotterer and Wehrspann (2016) explored the positive correlation between parental involvement and the cognitive engagement of their students, leading to higher academic outputs and adding to a robust body of research. This study added to this pool or research that overwhelmingly indicates that direct parental involvement leads to higher levels of academic achievement and student engagement (Anderson & Minke, 2007; Cotton & Wikelund, 1989; Waanders, Mendez & Downer, 2007).

This often has presented challenges for urban schools, which trend towards serving lower socioeconomic populations with higher levels of one-parent households, homelessness, and trauma (Dotterer & Wehrspann, 2016). Too often parent participation has become more challenging when considering the additional obstacles low-income parents face in spite of their desire to be actively involved in their children's education

(Dotterer & Wehrspann, 2016). As was noted by researcher, Pavlakis, in her 2018 study, schools in areas serving primarily low-income students may find it particularly difficult to build relationships with families. Many other researchers have agreed with this sentiment over the years in educational studies (Epstein, 2011; Floyd, 1998; Mapp, 2003; Murphy & Tobin, 2011; Smrekar & Cohen-Vogel, 2001). Even though most parents reported they wanted to be involved with schools, parents with higher incomes, more education, and more familiarity with schools were more likely to remain engaged (Epstein, 2011).

These challenges may be, as Pavlakis (2018), partly explained by parenting differences and social classes. Lareau (1987) suggested that low-income parents may lack the time, money, and/or systems knowledge to engage in their children's social and educational worlds in the same ways as middle-class parents. Yet, research also suggested that educators should be doing more to connect with parents who did not participate in traditional, middle-class ways (Carreon, Drake, & Barton, 2005; Sui-Chu & Willms, 1996). In order to increase parent participation, Carreon et al. (2005) wrote, more research is needed on the ways in which lower-income families *do* contribute, albeit in ways that may depart from the traditions of middle-class or upper-class parents, as well as ways in which schools can more effectively engage parents and stakeholders. This resource has the potential to shape the academic careers of urban students and to decrease the achievement gap.

Student Empowerment through Socio-emotional Supports

An additional nonmonetary resource in the spotlight more recently has been the behavioral supports in place for students. There is a growing body of work concluding

that one of the factors that contribute to academic success is the focus on socioemotional learning. Even though social and emotional stability are directly related to the overall wellbeing of a child, there remains uncertainty over their development in conjunction with academic growth (Paunesku et al., 2018).

Socioemotional Learning (SEL) techniques were designed to mitigate the behavioral extremes of students struggling in an academic environment due to lack of positive coping mechanisms and autonomy strategies. In a study by Berger, Alcalay, Torretti, and Milicic (2011), the researchers aimed to confirm the association between self-esteem, socioemotional levels, and social integration skills with success in classroom settings. The researchers surveyed 674 Chilean elementary-aged students distributed amongst 19 classrooms (Berger et al., 2011). Cross-sectional data indicated that socio-emotional variables and student self-esteem levels were associated with academic achievement (Berger et al., 2011).

The results of this study were echoed by Elias and Haynes in their 2008 study of more than 200 third grade students from six elementary schools in a Northwestern urban community. The study found that "despite living in disadvantaged urban communities experiencing social and economic hardships, many children emerge with positive outcomes. Social-emotional competence and social support were hypothesized to have strong influences on academic trajectories during the critical period of academic skill acquisition" (Elias & Haynes, 2008, p. 474).

In particular, the correlation between social-emotional competence and social support leading to higher academic trajectories were found in African-American students (Waters, Cross, & Runions, 2009). Research has long indicated that students felt more

competent when they received structure, clarity, and quality information about behavior

expectations and consequences of poor behavior (Waters et al., 2009; Klem & Connell,

2004). But clear expectations fell short when students had not been taught the tools and

methods enabled them to meet those expectations (Waters et al., 2009). Particularly,

disadvantaged students in urban settings oftentimes carried with them higher levels of

trauma and adverse childhood experiences than students from more socioeconomically

affluent backgrounds (Zins, Payton, Weissberg, & O'Brien, 2007: Waters et al., 2009).

Studies, such as the above mentioned, indicated that academic outcomes can, to some

level, be predicted by initial levels of academic, socioemotional growth coupled with

improvements and learned coping skills in conjunction with teacher and community

support over the course of a students' times at particular schools (Klem & Connell,

2004).

Asset Mapping

The idea that communities all have inherent strengths and good in them has been

essential to the framework of community asset mapping (Kretzmann & McKnight, 1993).

Asset mapping has been defined as essentially drawing a map of resources available

within a specific geographical location (Kretzmann & McKnight, 1993). Kretzmann and

McKnight (1993) piloted the concept of asset-based community development with asset

mapping as a tool to determine development goals. Assets have been characterized in a

variety of ways, but could be geographical resources, businesses, organizations,

nonprofits, structures, or people (Berkowitz & Wadud 2003).

Dorfman (1998) defined, asset mapping as "a process for determining assets in

the individual and in the community… By learning how to ask what communities have to

offer, a process of building, creating, and developing can be put into motion, and new ideas for community building can be gained" (p. 1). This corresponds with the shift in recognizing the interconnected relationship between urban educational settings and their surrounding communities (Patterson & Silverman, 2013; Warren 2005).

The concept of asset mapping has been used in in numerous case studies (Kerka, 2013; Mitchell & Bryan, 2007; Weng, 2016) across disciplines as a positive tool to determine the inherent assets within individual communities. Additionally, the practice aids in determining how to best proceed to develop and strengthen the community (Kerka, 2013). Translating this to the educational realm, asset mapping has enabled educators and school leaders to leverage the resources available outside of their buildings, as well as to build ties across separate sectors (both private and public) (Kerka, 2013). By reaching out to their communities for assistance, many times the schools bolstered their available supports (Weng, 2016). And, by investing in local schools, community members and institutions contributed to positive future community developments—the increased social capital of its members (Weng, 2016).

School Community Partnerships and Place-Based Learning

There has been an increasing school of thought that has appealed to levels of connectedness as an indicator of student satisfaction and academic performance. For the purpose of this study, connectedness was defined as the extent to which students feel included, involved, and supported in their schools' and communities' climates (Waters et al., 2009). Many times, students believed they were connected to their schools when they knew the adults in the schools care about them as individuals (Klem & Connell, 2004). Also, they were more likely to perform better academically (Waters et al., 2009).

In their study, Klem and Connell (2004) found that elementary students with highly supportive teachers were more likely to report engagement in school, which indicated teacher involvement and emotional support enhanced the students' feelings of relatedness and increased their likelihood to demonstrate positive attitudes towards academics and school values (Klem & Connell, 2004). Connectedness to school has been consistently associated with a wide range of health, social, and academic outcomes for children and young people (Waters et al., 2009). This might have included higher academic achievement, enhanced motivation, increased participation in extracurricular activities, and greater school retention (Waters et al., 2009). With high levels of school connectedness translating to academic and behavioral achievements, contemporary thought has taken the concept of connectedness further by incorporating community elements (Waters et al., 2009). This type of initiative has been known as place-based learning (Walters et al., 2009).

Perhaps the program with the most notoriety has been the Harlem Children's Zone (Whitehurst & Croft, 2010). The Harlem Children's Zone, or HCZ, was described as a program initiated in 1997 with the goal of holistically addressing the needs of low-income, high-risk children in the Harlem neighborhood, disrupting the cycle of generational poverty and developing high-functioning, self-sufficient adults (Whitehurst & Croft, 2010). A large part of this goal is its holistic nature, not just focusing on the academic aspect, but on community partnerships, neighborhood revitalization, and creating student success through meeting the needs of both children and their families. A large part of this success was the implementation of character development and the comprehensive, place-based nature of the initiative (Whitehurst & Croft, 2010).

The HCZ has operated under the assumption that engaging an entire neighborhood had transformative properties and facilitated powerful growth and change in children (Whitehurst & Croft, 2010). Establishing an environment in which schools and communities worked in conjunction served to meet local needs and to build a positive community in which members felt connected as stakeholders and are motivated to do things for the good of the community (Whitehurst & Croft, 2010). Therefore, enacting transformative change with students must involve engaging the community where they live (Whitehurst & Croft, 2010).

The results and methodology of Harlem Children's Zone was largely positive on the students' outcomes (Whitehurst & Croft, 2010). Dobbie and Fryer's (2011) study on whether high quality schools were enough to produce results found that the Zone's innovative, place-based approach had a positive impact on not only students' levels of connectedness, but on students' likelihoods of experiencing academic successes. However, the researchers cautioned against the assumption that community involvement as the highest indicator of a student's likely academic success, stating, "We conclude that high-quality schools or high quality schools coupled with community investments generate the achievement gains. Community investments alone cannot explain the results" (Dobbie & Fryer, 2011, p. 2).

Whitehurst and Croft's (2010) research built on the questioning of the levels to which community involvement was said to explain academic excellence, as well as concluding that while community achievement was beneficial for students, academic achievement did not occur without high quality schools (Whitehurst & Croft 2010).

The value of community engagement has been increasingly apparent (Stefanski, Valli, & Jacobson, 2016). However, student engagement must be understood as contrasting from involvement, as noted by Stefanski et al. in their 2016 study. While involvement was described as participation at school functions and programs, engagement involved parental or community input in program development—more of a partnership between the community and the school (Stefanski et al., 2016). This study also heightened the awareness of need for stakeholder involvement in the inception of programs or initiatives (Stefanski et al., 2016; Pulido et al., 2012). Other studies also highlighted the benefits of positive, trusting relationships between students and teachers with students' learning levels influenced by collective trust of students towards teachers and teachers towards students and parents. These trusting relationships were stronger predictors of math and reading achievement than school socioeconomic status (Adams, 2010).

Community school initiatives have shown positive results across a range of indicators including: a) academic performance, b) attendance, c) parent involvement, d) student motivation and connection, and e) teacher attitudes, among others (Adams, 2010). An increasing numbers of schools and leaders have been transitioning from traditional structures and are gravitating towards more expansive, inclusive models of education that take into account the synergistic opportunities within communities, schools, and other spheres of influence (Blank, Berg, & Melaville, 2006). With the attention of these inclusive models, the question moved away from questioning the validity of a comprehensive, community-oriented approach to education, but on quantifiable steps to achieve such an approach (Blank et al., 2006). Most research has been done on what

components contributed to beneficial environments for youth, but not as much research has gone into how to actually obtain those components (Shinn & Yoshikawa 2008).

While the Harlem Children's Zone emphasized community in conjunction with academic rigor, other programs, such as the Caring School Community, focused more on student autonomy and empowerment (Lewis et al., 2003). This structure was designed to meet the socioemotional needs of students through class meetings, intergrade "buddies," parent involvement, and school-wide components (Lewis et al., 2003). The intent was for the program to focus tightly on strengthening community using the components that were most practical and affordable (Lewis et al., 2003). In this case, it was socioemotional learning (Lewis et al., 2003). This structure not only impacted students' safety and well-being, but also academic performance (Lewis et al., 2003). The program targeted underperforming schools throughout the country, and through rigorous evaluation methods were shown to positively impact students' academic achievements, their socioemotional skills and mindsets, and lesson their likelihood of displaying problems with drug and alcohol usage. (Lewis et al., 2003).

Chapter Three: Research Methodology and Design

This chapter describes the methods and practices employed in the construction and implementation of this dissertation. In this Chapter, the research team will elaborate on the purpose of the study, the research design, and the research questions that will guide the study.

Purpose of Study

This mixed-methods study measured the nonmonetary assets of two urban elementary schools within the Saint Louis Public Schools District serving populations with similar socioeconomic statuses but in differing geographical areas. The study mapped the assets of a Northside elementary school and a Southside elementary school, comparing and contrasting the available assets and distribution of nonmonetary resources, as well as how they translated to student academic outputs. A convergent mixed-methods design was used, which was a type of design in which qualitative and quantitative data were collected in parallel, analyzed separately, and then merged (Fraenkel & Wallen, 2015).

Using the approach of Asset Based Community Development, which utilizes appreciative inquiry, the comparative case analysis explored community resources, teacher and professional staff experience levels and morale, available student-level behavioral supports, and school partnerships. This broader characterization of assets was run against academic performance as measured by the SCANTRON adaptive assessment, specifically focusing on Student Scale Score and Normal Curve Equivalence.

Research Questions, Objectives, and Hypothesis

This research explored a problem of practice related to educational equity markers within a single, urban school district. The results of a comparison of a Northside and Southside elementary school within a single district were examined and analyzed. Additionally, strategies to improve academic performance through district-wide resource equity, leadership accountability, and program efficiency were investigated. The researcher hypothesized that differences in asset availability would influence academic outcomes, with the Southside elementary school showing stronger test scores. This hypothesis ended up to be erroneous, with the Northside elementary school displaying greater academic gains. The research question guiding this study was: To what extent does a single urban school district display variations in nonmonetary resource allocations, such as community involvement, teacher and leadership experience levels, and available behavior supports? In what ways does differing levels of support impact the academic output of students?

Research Design

This comparative case study followed a convergent mixed methods design. According to Creswell (2014), Mixed methods research is a methodology for conducting research that involves collecting, analyzing and integrating quantitative (e.g., experiments, surveys) and qualitative (e.g., focus groups, interviews) research. Utilizing both quantitative and qualitative research procedures drew on the strengths of the separate methods, while also mitigating their weaknesses. In addition, it provided additional data that allowed the researcher to examine the research question with both breadth and depth, allowing for a more comprehensive understanding of a phenomenon (Johnson & Onwuegbuzie, 2004). In this case, both qualitative and quantitative data were

gathered to more fully understand the impact of community and school nonmonetary resources on student academic outputs. Using just one method would not have proved sufficient in exploring the many faucets of this topic.

A mixed-methods research design involves pulling aspects of both quantitative and qualitative research to draw conclusions (Creswell, 2014). In quantitative research, the aim is to make predictions and seek explanations that confirm relationships and can be generalized to fit in with existing theory (Leedy & Ormrod, 2001). This framework relies heavily on collecting data and submitting it to statistical treatment in order to confirm or refute and existing hypothesis (Creswell, 2014). In contrast, qualitative research is a more discovery centered approach, less focused on numerical data and more focused on the researcher's high level of involvement in the actual experiments (Creswell, 2014). Qualitative research approaches the phenomenon being studied through the vantage point of the participants and is used to formulated and build new theories rather than confirming or disproving existing theories (Creswell, 2014).

What constitutes qualitative research involves purposeful use for describing, explaining, and interpreting collected data (Leedy & Ormrod, 2001). Leedy and Ormrod (2001) alleged that qualitative research is less structured in description because it formulates and builds new theories. Qualitative research can also be described as an effective model that occurs in a natural setting that enables the researcher to develop a level of detail from being highly involved in the actual experiences (Creswell, 2014). Due to the highly individualized aspect of this research, with each community and school site containing vast differences, qualitative research enabled the researcher to draw conclusions based on immersive experiences and the thick descriptions of participants.

A mixed-methods research design builds on the strengths of both the deductive nature of quantitative research and the inductive nature of qualitative research (Creswell, 2014). In short, a mixed-methods approach advocates for utilizing whatever tools appropriate for developing a comprehensive answer to a research question (Mingers, 2001). The mixed-methods research rejects and "either/or" premise, instead advocating for a pragmatic, case-by-case approach to complex phenomena. This approach lent itself to the research goal of making visible the preexisting nonmonetary resources available to school sites, and aids in tracking their use and impact (Mingers, 2001).

There are various designs for mixed-methods research, and the design used in this study was convergent, in which qualitative and quantitative data were collected in parallel, analyzed separately, and then merged (Creswell, 2014). This convergent parallel design prioritized qualitative and quantitative methods equally, keeping the data analysis independent until the overall interpretation. This approach was appropriate in answering the research question because it facilitated a broad approach to collecting data and allowed for flexibility in data collection that responded to in-the-moment observations. In addition, the separate analysis protected against one type of data influencing the interpretation of another type. Themes of convergence, divergence, or relationships can be formed after rigorous analysis.

Sampling

The analysis (both quantitative and qualitative) focused on assets within and surrounding Southside Elementary and Northside Elementary during the 2018-19 school year. The sampling procedure used for the quantitative and qualitative portions of the study was purposive sampling. This study was based on the analysis of a small

population size (schools within a single district). The sampling procedure that most closely reflected this was purposive sampling, where the researcher used judgement to select participants that were reflective of the population. The specific criteria used to select Southside Elementary and Northside Elementary were schools that served a similar socioeconomic demographic, were both neighborhood schools, were of a similar size, were in differing parts of the city, and had historically produced varying degrees of successful academic outputs.

Qualitative data was gathered through interviews with 10 staff members—five from each site. The principal, family and community specialist, academic instructional coach, and two teachers were interviewed for up to one hour each regarding their perspectives on their schools, how nonmonetary resources were utilized, and the impact these resources had on students. Interviews were recorded and transcribed using the Otter Voice Notes software application. In addition, participants were asked to fill out the Adverse Childhood Experiences (ACE) quiz on 10 of their most behaviorally challenging students. The names were kept anonymous to the researcher to ensure student privacy.

The unit of analysis for the quantitative data was students. The sample size was up to 140 third through sixth grade students from two elementary schools, which was roughly 70 from each site. Because the objective in selecting a sample size was to gather information about a whole group of people, it was essential to choose a sample size that could be generalized back to the entire population to ensure population validity (Fraenkel & Wallen, 2015). Due to the highly specific and individualized nature of asset mapping, this comparative case analysis could not translate perfectly back to the entire district

since each community and school site had unique assets, but the nature of the study can be replicated and generalizations can be drawn based on the geographical locations (North and South city) of the schools.

For the quantitative portion, the researcher checked for content validity by seeing if the items measured the content they were intended to measure, predictive or concurrently validity by asking if the scores predicted a criterion measure or if results correlated with other results, and finally constructed validity by asking if items measured hypothetical constructs or concepts. The researcher checked for reliability of quantitative findings by looking for whether authors reported measures of internal consistency, by observing test-retest correlations, and by determining the levels of consistency in test administration and scoring.

For the qualitative portion of the study the researcher ensured soundness and rigor by using the steps suggested by Creswell (2014). First, a rich, thick description through peer debriefing was used to have others in the field review the researcher's findings. Second, sound research practices were observed through triangulating data discovery through use of a variety of collection methods, such as observations, interviews, and surveys (Creswell, 2014). And, third, rigor was bolstered by employing member checking to ask participants and those affected by the phenomenon whether results matched their understandings.

Methods of Data Collection and Data Collection Procedures

The researcher collected data on the nonmonetary assets of Northside Elementary and Southside Elementary and their surrounding communities. For the purpose of this study, the community was defined as the area within a half mile radius of each site.

Nonmonetary assets were those indirectly related to the financial wealth of the schools. Nonmonetary assets explored in this research were those organizations, businesses, or groups who had partnerships or active connections with the school sites.

The researcher also explored the nonmonetary assets within each site. The assets explored were: a) non-classroom teacher allocations, such as counselors, interventionists, family and/or community specialists), b) professional staff experience levels and staff morale, c) school-community partnerships, and d) parent-teacher organizations. The research did not consider the amount of money allocated to the schools by Saint Louis Public School District. All data was collected with the full knowledge of the Saint Louis Public Schools District, as well as with the consent and knowledge of the participants. Data collection adhered to Institutional Review Board (IRB) stipulations.

Quantitative data was compiled using the district's Student Information Systems (SIS) data, SCANTRON assessment data (the district benchmark for elementary schools), as well as through the Missouri Department of Elementary and Secondary Education (2019) Annual School Report Cards, which were publicly available. Qualitative data was collected through interviews and surveys with principal, teachers, and other staff members at their respective school sites.

For the qualitative portion of the study, interview data focused on a combination of both etic and emic perspectives (Creswell, 2014). Because the researcher was actively employed by the district in which the research took place, care was taken in order to ensure the principals and other staff members felt comfortable that the study was not evaluative of their performances or intended for district use. In order to achieve this end, an emphasis on collaboration between the interviews and the researcher was developed,

and the researcher's prior experience as a teacher in the district provided a level of comfort for the interviewees, resulting in more candid responses. The researcher then analyzed the qualitative data starting with sorting the raw data and aggregating the data into a small assortment of themes. Themes emerged through the mind mapping of codes, through analyzing SCANTRON test data, and through constructing a narrative by writing memos.

Statistical analysis of quantitative data was conducted using both descriptive and inferential statistics. Because the intent of this study was to measure the assets of two elementary schools and their impacts on the academic success of students, multivariate regression models were used in order to determine the influence of multiple independent variables, which included a) teacher experience levels/attendance, b) behavioral supports, and c) community resources, on the dependent variable, which was academic output. Before analysis, the data was controlled for the time in which students attended the elementary school, as well as their exposure to trauma as measured by the ACE test. Outliers were identified and excluded.

In this study, the quantitative data was measured by the SCANTRON performance series math and reading Scaled Score results, performance bands, and Normal Curve Equivalents. These computer-based adaptive tests utilized Item Response Theory (IRT) in order to estimate a student's proficiency level within a given domain. Students' individual, scaled scores estimated their abilities in each particular area and provided a framework for student growth and knowledge over time. These scores were nationally normed and were calculated by the Rasch IRT model of measurement (Performance Series, 2016). These scaled scores corresponded to National Percentile

Rankings based on national norm research and were then converted to Normal Curve Equivalence scores—equal interval scores conducive to groupings and averages—which were then used as further indicators of both individual student performance and the overall academic advancement of each school site.

In conjunction with scaled scores, the researcher utilized Standard Error of Measurement and Standard Error in order to establish confidence intervals for each student's scaled scores. Scaled scores were first analyzed by accessing students' Gain scores (in both math and reading) – the difference between students' fall benchmark scaled score and spring benchmark scaled score. Scores were aggregated by class, by grade, and finally by school in order to develop a picture of the academic achievement and growth at each school site.

Timeline. This research was conducted during the Fall 2018 and Spring 2019 semesters, with the consent of Saint Louis Public School District and officials in Southside Elementary and Northside Elementary. The Institutional Review Board approval was obtained in the Fall of 2018. Interviews took place during the Spring 2019 semester. The SCANTRON benchmark data from the Fall 2018 window was collected after its implementation and was run against data from the Spring 2019 window, which closed on March 4, 2019. Data collection took place primarily in the spring semester, concluding with the school year. Analysis and broad conclusions were determined afterwards, with the bulk of writing taking place in the summer of 2019.

Chapter Four: Findings and Results

This chapter addresses the results of the mixed-methods study developed to answer the following research questions:

1. To what extent does a single urban school district display variation in nonmonetary resource allocations such as community involvement, teacher and leadership experience levels, and behavior supports?

2. In what ways do differing levels of support impact the academic output of students?

This chapter was first organized by presenting the demographics of each building, including a) enrollment counts, b) proportional attendance rates, c) staffing ratios, d) average years of staff experience, and e) percentage of staff members with advanced degrees. Second, the chapter details the themes discovered through analyzing and coding transcripts of staff interviews. Third, the chapter presents the results of statistical tests run using the SCANTRON performance series test results from each site.

Primary research data was comprised of interviews with key staff members at both site locations, and SCANTRON Performance Series achievement data. Supporting research data was comprised of staff and student demographic information found in the Tyler SIS Database, site analyses available through the Missouri Department of Elementary and Secondary Education (2018), and staff responses (on behalf of their students) to Adverse Childhood Experiences questionnaires.

Site Overview, Demographics, and Indicators

All tables in this section were constructed using information from the Missouri Department of Education (DESE) Annual School Report Cards and the district's reporting tool, Tyler School Information Services (SIS).

Geographical Locations. Students' data from two schools were analyzed for this study. Both participating schools were located within the city of St. Louis, Missouri, with Southside Elementary in the southern portion of the city and Northside Elementary on the border of North St Louis. The below map—created using the web based Mapline mapping program—shows the geographical locations of the two sites (see Figure 1). The sites were located approximately four and a half miles apart, with an average driving distance of 15 minutes to get from one location to the other.
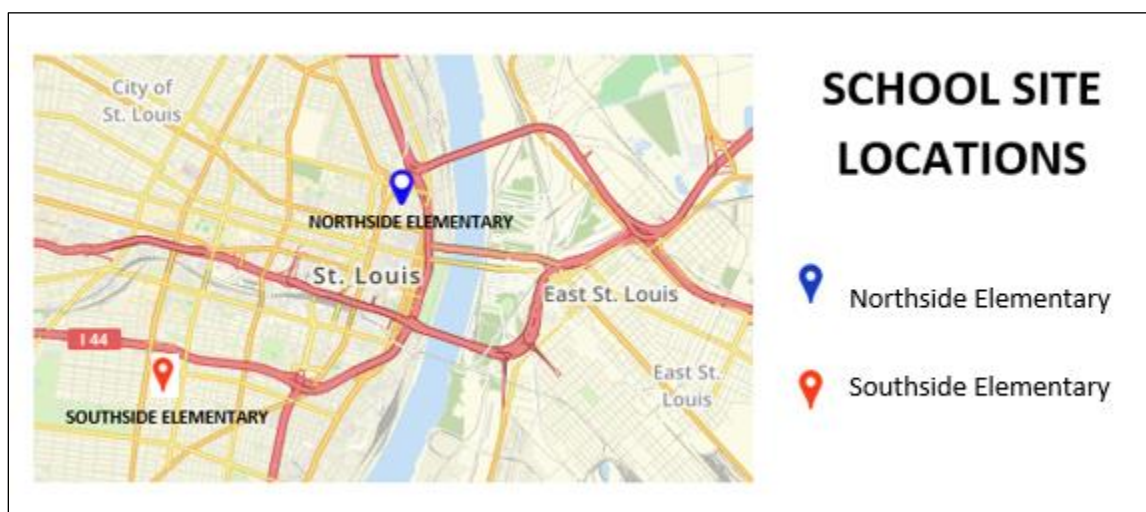

Figure 1. Map of the location of Northside and Southside Elementary Site Locations created in Mapline (2019).

Enrollment and Attendance Data. The table below (see Table 1) shows total enrollment for each site for the 2018-19 school year, as well as student demographic

information, including race, gender, and special education percentages. While Northside Elementary was the larger school, both sites have similar demographics. Both student populations were primarily black with slightly higher (10%) percentages of male than female students. Both schools were 100% qualified for Free and Reduced Lunches, and approximately 13% of the students received special education services.

Levels of transient students were also listed (Table 1). For the purpose of this study, Ferguson's (2018) definition of (on behalf of The National Institute for Urban School Improvement) transient, or highly mobile, was used. The term was defined as "students who change schools six or more times in their K-12 careers" or those who "change schools three times through third grade" (Ferguson, 2018, p. 1). Percentages of students fitting this criteria were self-reported to the researcher by building principals and cross-checked by the academic instructional coaches. Northside Elementary's estimation compared to Southside Elementary's indicated that a Northside student was four times as likely to be transient than a Southside student.

Attendance Rates. Schools are required to submit daily attendance records for all students. Attendance rates are set based on "the individual student's attendance rate and set the expectation that 90% of the students are in attendance 90% of the time per federal guidelines" (DESE 2019). Northside's overall attendance rate for the 2018-2019 School Year was 84% (see Table 2). Attendance was consistent amongst students of different races, genders, and special education status. Southside Elementary's overall attendance rate for the 2018-2019 school year was 71.9%, with special education students attending most frequently (79.2%) and white students attending least frequently (51.8%) (see Table 2).

Table 1

Total Enrollment by Site for the 2018-19 School Year

Enrollment by Site	Northside Elementary School	Southside Elementary School
Total Students	241	140
Black	99.6%	92.9%
White	0.0%	4.3%
Female	44.8%	45.7%
Male	55.2%	54.3%
Free or Reduced Lunch	100.0%	100.0%
Special Education	13.3%	13.6%
Transient	*40.0%	*10.0%

Note. Enrollment for kindergarten through 12th grades for 2018-2019 School Year.
*Self-reported by school administrators.

Table 2

Proportional Attendance Rate by Site for the 2018-2019 School Year

2018-19 Proportional Attendance Rate by Site	Northside Elementary School	Southside Elementary School
All Students	84.0%	71.9%
Black	84.1%	73.1%
White	0.0%	51.8%
Female	85.4%	73.9%
Male	82.7%	70.3%
Free or Reduced Lunch	84.0%	71.9%
Special Education	79.2%	79.2%

Note. Attendance for kindergarten through 12th grades for 2018-2019 School Year.

Staffing Demographics. The average professional staff member working at Northside Elementary had seven years of experience, and 38.1% of professional staff members held advanced degrees. The average professional staff member working at Southside Elementary had nine years of experience and 48% had obtained an advanced degree. Rations of students to classroom teachers at Northside Elementary were 13 to one. Southside Elementary had a student to classroom teacher ratio of 11 to one (see Table 3).

Table 3

School Staffing Demographics for the 2018-2019 School Year

School	Years of Experience	Staff with Advanced Degrees	Staffing Ratios
Northside Elementary	7	38.1%	13:1
Southside Elementary	9	48.0%	11:1

Note. Data was for the 2018-2019 School Year.

Qualitative Research

Staff members from each school site representing both academic and administrative roles were interviewed regarding their perspectives on in-school supports, community involvement, and the behaviors and academic successes of students. Additionally, interviewees were asked regarding their perspective on what non-existing supports most positively impacted students' academic outputs. The principal, academic instructional coach, family and community specialist (or equivalent role), and two teachers were selected to participate for each school. This assortment of individuals allowed for differing perspectives and roles to be represented. Each participant was interviewed by the researcher during the Spring Semester of 2019. The majority of interviews were conducted in person, utilizing OtterVoice Notes to capture dialogue, as well as being transcribed in person.

Participants. Participants were primarily female, representing 80% of the sample size. The other 20% were male and were the principals at each site. Of the participants,

40% of interviewees identified as Black, and 60% identified as White. Interviewees

represented a wide range of experience levels and times spent in the school district.

Qualitative Data Analysis. In the data analysis, the participants' interviews were

coded manually in two groups according to location. This portion of the research was

analyzed by school level input. Data was engaged with an open approach with each batch

of interview transcripts read and analyzed for themes or categories. The researcher coded

the interviews with an open coding analysis and with the aim of finding common

categories and themes. As themes emerged, selective coding was utilized followed by

theoretical coding. The relationships among the two different batches were then explored,

with codes modified or condensed where appropriate.

Transcripts of each interview were then uploaded into Dedoose Qualitative

Coding software. These were taken from the Otter Voice Notes application, which was

the recording tool used by the researcher during interviews. The transcripts generated by

Otter Voice Notes were cleaned up and merged with the notes taken by the researcher

during each interview. Once transcripts were uploaded, they were again manually coded

using the Dedoose Software. The themes and codes that emerged during this manual

process were compared with the codes developed during the initial coding phase. This

dual method of analysis and coding comparisons allowed the researcher to establish

confidence in the validity of the emergent themes and adhered to the recommendations of

solid methodology (see Figure 2).

Descriptors were attached to each transcript in order to add depth and context to

the interview analysis and allowed for viewing the codes in different groupings.

Descriptors provided additional insight into each school site and allowed for easy

comparison amongst other categories. Codes could be sorted by years in education or school role in order to illuminate differences or similarities amongst various groups.

The descriptors used were:

- Years in Education Gender

- Degree Level (Advanced or not)

- Race

- School Role (administrative or teaching)

- School Site

- ACE Score

Interviews were closely read and considered for their main ideas or commonalities. This process was made easier due to each participant being asked the same core set of questions. By starting with open coding, themes emerged organically and were tested and checked through selective coding using MURAL mind mapping software. The twenty-seven open codes discovered during the initial coding phase were added to the mind map, and transcript excepts were attached to codes. The map was then formatted according to frequency and related codes were connected with arrows (see Figure 1 below).
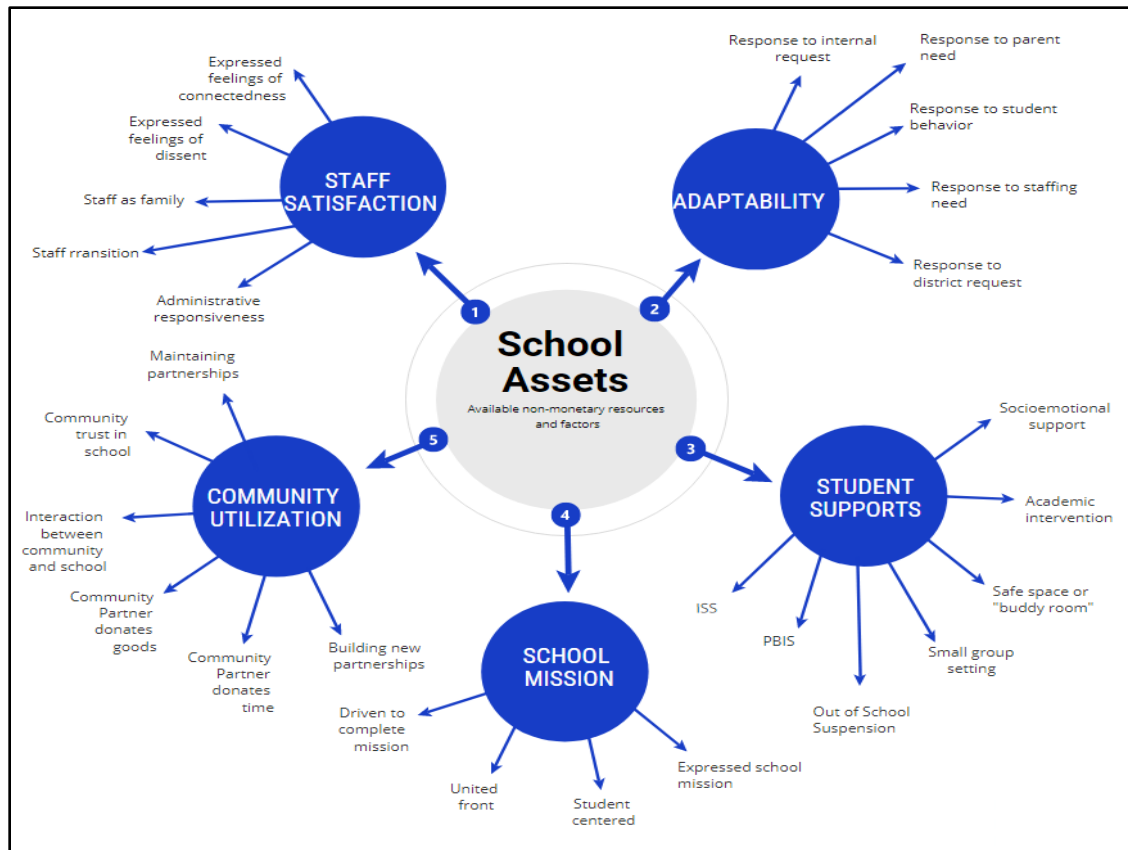
Figure 1. Nonmonetary School Asset Mind Mapping Themes utilized in the study by the

researcher (MURAL, July 2019).

Next, theoretical coding was employed in which the mind map was examined for

direct relationships between themes. Linked codes provided the basis for the theoretical

coding and linking became the point at which key themes were identified (See Figure 2
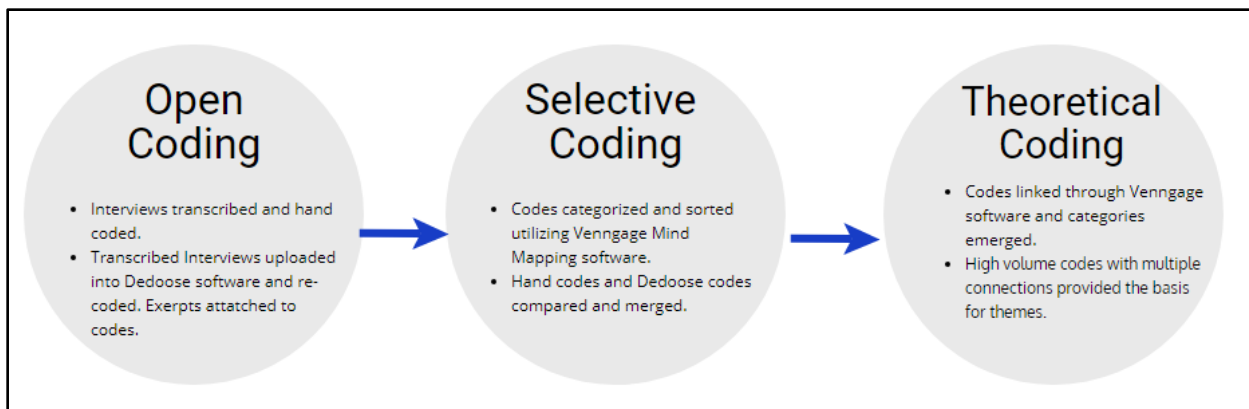
below).

Figure 2. Theoretic coding procedure employed in this study (MURAL July 2019).

In the process of analysis, the point of saturation was reached when no new codes emerged in the interview data and clear themes emerged from the mind map (Creswell, 2014). The researcher checked themes for frequency at both schools and found five key themes emerged as indicators of the cultural health and success of each building. After analysis of the participants' responses, the following themes emerged:

1. School and staff levels of adaptability

2. Staff satisfaction and connectedness

3. Student supports and behavior interventions

4. Community supports and utilization

5. Unified school level vision/mission

School and staff levels of adaptability. Adaptability was defined in this study as the level to which the observed schools show flexibility and differentiation to meet the specific needs of their populations. Five open codes were related to the topics of response to district request, response to student behavior, and response to staffing need, and they were originally assigned to this selective code. In the interviews, participants indicated

that often observed needs at the school level vacillated from requirements from the school district or their school's perceived needs.

High levels of district supervision perhaps reflected a push towards homogeneity and aligned goals in order to solidify recent reaccreditation. However, interviewees indicate that this push did not take into account the unique populations and priorities of individual schools serving diverse students with unique requirements. Field notes and staff interviews highlighted a disconnect between the ways the district and individual schools perceived the areas of greatest need. Speaking towards the issue of one-size-fits-all district requirements, one Northside Elementary participant stated:

> It's understandable. There needs to be systems in place, a sort of common bar. That's a given when you're part of public education. But when the common bar isn't adequate to meet the needs of MY kids, then of course I'm going to take issue with it." (Participant 6, Personal Interview, 2019, March 4)

Another respondent described the tension between district and school desires as "disconnected from each other…seeing totally different realities."

That same participant detailed her perception of the disconnect, stating, "We [the school] don't really get support from the district. We get a never-ending list of things we have to do. There isn't a lot of wiggle room. When we ask for changes, there isn't really an answer."

While participants from both schools expressed frustration that district-level administrators' responses to their individual building's essentials were often inflexible and inadequate to sufficiently address student needs, in cases where district and school requirements conflicted, school responses differed. Reference points from interviews and

field notes indicated the Southside Elementary School's culture trended towards adherence to systems and structures, whereas Northside Elementary School's culture showed more flexibility and more open interpretation with district mandates.

At Southside Elementary, according to participants' responses, their school district's guidelines were predominately observed with teacher allocations, class sizes, and core and supplemental content block timelines fitting into the district-provided framework. One example of school adherence to district guidelines was overall staff response to a new testing initiative. The initiative required elementary tested-grade, which involved grades third through sixth, teachers to administer bi-weekly formative assessments in the core content areas of reading, math, and science. The district decision was driven by a desire to more closely track the progress of students towards end of year testing goals.

In response to this issue, 80% of participants across both school sites expressed dissatisfaction with this added requirement. These participants cited issues with time management, fitting the assessments into already tight core content blocks, and diminishing returns with a drastic influx of testing requirements as reasons for their dissent. Participant Three from Southside Elementary stated:

> There's so much testing that it doesn't really feel like we have time to get
> ourselves together, you know? Like, we are testing standards and retesting them
> before we even have a chance to cycle through and reteach. But, ultimately, we
> just need to get it done because that's what they [the district] want.

An administrator from the same school reiterated Southside Elementary School's employee's reluctance to comply with the new testing rollout. The principal stated:

We do our best to meet the demands. We keep things documented. We meet testing requirements. We teach handwriting. We've changed our science block multiple times. But if we had our way, we probably wouldn't do some of those things, or we would do them in our own way in our own time.

In contrast to Southside Elementary School's faculty's strict compliance, according to their responses, the faculty with Northside Elementary used more circuitous ways to uphold the spirit of the testing requirements, but not to their entirety. An administrative interviewee was blunt in her criticism of the high volume of tests, questioning whether the team mandating the testing recently had observed in any district elementary locations. The administrator at Northside Elementary maintained that inserting additional testing had to come at the expense of other requirements. She stated:

Let me be clear, this is for them— not for us. We've been able to shift it to fit our needs, but we recognize that the whole premise is to get data that benefits the Academic Department. It doesn't actually make sense for us. So our leadership team met and we decided we were going to focus on the reading assessments. We pulled everyone in the building. I'm talking librarian, secretary, PE teacher, everyone – and we all had a group. We formed small guided literacy blocks and incorporated the assessments into those group times. It was a short block, and it meant we had to eat into a little of the social studies time, but it was purposeful and just enough time that twice a week the block was the staff member administrating the assessments. The small groups made it take less time, and we ultimately were able to maintain focus on our differentiated, tiered supports.

The theme of adaptability was not isolated to testing protocols. One of the ways Northside Elementary administrators expressed response to the needs of their students is in their re-purposing of the Family and Community Specialist (FCM) position. When funding was reallocated, the participants explained, schools were no longer given a position for a Positive Behavior Intervention Supports (PIBS) role. The prior PBIS coordinator was granted the role of the FCM. The responsibilities of that position were allocated amongst all administrative staff, and the individual who was filling that role was given space to continue PBIS interventions.

The dean of the School Culture position was another example of repurposing building staff allocations. This position did not exist in most SLPS buildings, and the individual who currently occupied the role stated, "I'm technically filling a teacher position" (Participant 7, Personal Interview, 2019 March 8). She went on to state that "[the principal] is really great at placing people where they belong."

One Northside Elementary administrative participant asked that certain staffing information be withheld from the district in an attempt to avoid possible repercussions, maintaining "We are…creative…in how we utilize our resources. Often in ways that are not explicitly approved by the district" (Participant 6, Personal Interview, 2019 February 4). He clarified that the alterations to district resource allocations always seeks to benefit the individual students of Northside Elementary, and never goes against the mission of the school district. Instead, deviations from guidelines were:

As close to meeting the requirements as we can get while still upholding our ultimate goal of doing right by kids. Ultimately, we are here for them and their good, and I can stand before anyone anywhere and say that all of my decisions

have been based in providing the best outcomes for them. (Participant 6, Personal Interview, 2019 February 4)

School mission. The theme of school mission emerged from open codes where interviewees expressed the school mission/vision or elements that aligned to the stated vision. Of the participants, 80% across both school sites framed at least one response in the school's mission. Of the Northside Elementary participants, 100% mentioned their version of school's mission and expressed how their experiences aligned to the school missions. The manner and terms in which this was expressed was cohesive and consistent across all interviews. They were student-centric statements that emphasized support, individualized learning, and community involvement.

Participant 9 described the school's vision as "all about kids all the time" (Participant 9, Personal Interview, 2019 February 7). Another participant stated that, "We have worked to create a place where kids want to come to school, where they have a direction and goals and are supported getting there." (Participant 7 Personal Interview, 2019 March 8). Participant 6 explicitly stated his thoughts on the school mission:

> "My goal for [Northside] has always been to equip students with the traits – academic and character based – so that they can be successful both in school and outside of it. Each month we focus on one of those traits and celebrate students when they demonstrate it." (Participant 6, Personal Interview, 2019 February 4)

Two Southside Elementary participants directly referenced a school mission. One participant stated, "We want to build a positive climate and school culture. Personally, I want to make it a place I would send my kids" (Participant 5, Personal Interview, 2019 February 1). Another stated, "We want to build a place where kids aren't just fighting and

goofing off, but are actually engaged in their work, and have rigorous work to complete"
(Participant 1, Personal Interview, January 29). Participant 4 was prompted regarding the
mission in response to her answer to another question. She stated, "Hm, I am actually not
really sure. I know we have one. I just don't know it off the top of my head" (Participant
4, January 31). Overall, the school mission was a predominant theme in the study.

   Staff satisfaction and connectedness. Multiple open codes emerged under the
theme of staff satisfaction and staff connectedness in which participants indicated the
levels to which staff members supported each other and worked as a cohesive unit. Role
challenges, staff transition, staff support, and staff community were included. The morale
and level of support felt by staff members was vocalized in 100% of the interviews.
Perceived support levels and connectedness amongst staff varied by site.

   Northside Elementary showed the most consistency with staff satisfaction, with
33 positive code occurrences amongst the interviews, compared to 17 positive codes
discovered in Southside Elementary interview data. Participant 9 acknowledged that she
was motivated to teach at Northside Elementary due to its reputation as a positive
working environment that pursued excellence for both students and staff. She stated:

   I did specifically come to [Northside Elementary] because of [the principal] and

   [the academic instructional coach] and their reputation for building a place that

   people WANT to come to work. This job is hard enough without feeling

   supported by administration. (Participant 9, Personal Interview, 2019, February 7)

   Participant 10 also voiced the opinion that Northside Elementary was a place
where staff felt connected and supported. When asked what she was most proud of at her
school, she responded:

The relationships between the staff members and administration, the community, and the parents of the students. We all come together to do what needs to be done all the time. It all in, all the time here, and that's not something you'll see everywhere. (Participant 10, Personal Interview, 2019, March 4)

These sentiments were expressed in each Northside interview. Another participant said:

 The first thing that comes to mind is all hands on deck. There is not any team member that does not contribute. We are a team, a family, and we support each other in the good or the bad. I can tell you that there is very little I wouldn't be willing to do if my teammates asked. (Participant 7, Personal Interview, 2019, March 8)

Another participant echoed this sentiment:

We work in a team dynamic here. Roles shift as necessary. We do what we need to when we need to in order to provide the best results for the students. It's all about them. We remind ourselves that what we do needs to serve their best interests, and then we go for it. We support each other, grounded in that goal. (Participant 8, Personal Interview, 2019, February 4)

From the administrator's perspective, this has been a prominent goal of leadership and teachers:

I think that when you really seek to understand what it is that your staff needs to feel supported, and you do your very best to differentiate and give each staff member what it is they want, you see greater buy-in. For some, it's being left alone to plan lessons and having a large degree of autonomy in their classrooms.

For others, that feels neglectful, and so we try to pop in on their classrooms more

often and just check in. Ultimately, it's about trying to find what works for each

teacher. (Participant 6, Personal Interview, 2019, February 4)

The Southside Elementary participation showed more variation in responses.

Three of the five participants indicated positive levels of satisfaction, while two were

more hesitant in their responses. In contrast to Northside Elementary interviews,

Southside Elementary interviews showed 17 occurrences of positive satisfaction codes

and nine occurrences of negative feelings or isolation from other staff members.

Responses ranged from enthusiastic approval of Southside's overall procedures and

culture to less positive positions. One satisfied staff stated:

It's a great place to work. We had a period where we went through a bunch of

principals in a year, and it was really unsettling. I think we are finally coming out

of that now and [the principal] is really amazing at listening to everyone and

getting us to work together. This school is special. We are like our own little

family here. The students are all cousins and brothers and sisters and grow up

together, and the staff is like a family too. We all get along. (Participant 2,

Personal Interview, 2019, January 29)

Unprompted, a staff member approached the researcher during a morning arrival

and breakfast observation. "He'd do anything for us, you know," she stated. When

questioned as to why she felt that way and she could give examples, the staff member

replied, "I just know. It's not one thing he said or did or anything like that. It's all the

little things."

She then shared of a time when her car was broken down and the principal volunteered to pick her up, so she wouldn't have to pay for an Uber. Another example provided was how the principal was always "stepping in" to allow staff bathroom breaks or to be a support for classroom activities and read-alouds (Southside Staff Member 1, Personal Communication, 2019, January 29).

However, there were others who were not as complimentary. One administrator and one teaching staff member, both with 18 years of experience, expressed their disapproval or room for improvement with their role or with fellow staff members. Participant 4 was the most vocal about her concerns:

> We have a pretty grounded staff. In the end, everyone keeps their head down and does their job. Do I agree with a lot of the decisions made by administration? No. I don't. But I guess that's not really my place to say how things should be run, is it? I just do what I'm supposed to do and let other people do what they're going to do. (Participant 4, Personal Interview, 2019, January 31)

A building administrator shared a slightly different rationale for her lack of enthusiasm for Southside's current cultural climate, citing massive staffing shifts and perpetual transitions that have left staff guarded in how they comported themselves:

> I think a lot of us have been impacted by all the administrative changes. We have gone through so many principals who've left and come back and left again, and the FCM [Family and Community Specialist] role being filled and vacated and filled again by someone new – it's been a lot of changes and it's made some of us weary. To [the principal's] credit, he's trying to build something back up here, but it's a little tough right now. People don't necessarily want to give their full

support until they're certain he's not going anywhere. (Participant 5, Personal

Interview, 2019, February 1)

Community supports and utilization. Coding themes also emerged regarding the

levels of community support at each site. There were six open codes under this theme,

including a) maintaining community partnerships, b) building new community

partnerships, and c) community utilization. Participants' responses from both schools

showed large volumes across all open codes under this theme, and participants across

both sites showed a level of pride in their schools' community partnerships. All

participants responded positively to queries into community partnerships and parent-

teacher organizations. Participant 10 felt strongly about Northside Elementary's

administrators' intentionality towards garnering community partnerships and concisely

exemplified the dominant narrative at her school:

We really reached the neighborhood. I think we did it because we really listened

to the needs of families, and we also helped families figure out what they need.

It's our priority. Everyone is looking for the needs of our students and how to

meet them. If you're in the community and you see a place that is really looking

out for your kids and wants to serve them, you're probably going to respond

positively to that. (Participant 10, Personal Interview, 2019, March 4)

Similarly, Participant 2 encapsulated the mindset of staff members at Southside

Elementary with her statement:

 This school has the community with us. We have such a strong community

behind us. At one point the district decided to shut down the school, but the

community rallied behind us and campaigned and wrote letters and got signatures

and ultimately we stayed open. Now, the burden is on us to maintain those

relationships. (Participant 2, Personal Interview, 2019, January 29)

Principals and Academic Instructional Coaches were asked to detail their

community partnerships, and to add up the total hours per person for each partnership

spent in and/or on behalf of the school site per week. The below table summarizes their

responses (Table 4).

Table 4

School Partnerships by Categories and Type of Service

SOUTHSIDE ELEM.		NORTHSIDE ELEM.	
Community Partner	Type of Service Provided	Community Partner	Type of Service Provided
Business Partner 1	Goods	Business Partner A	Goods
Business Partner 2	Goods	Business Partner B	Goods/Service
Business Partner 3	Goods/Service	Business Partner C	Goods/Service
Business Partner 4	Goods/Service	Community Org. A	Service
Business Partner 5	Goods/Service	Community Org. B	Service
Community Org. 1	Goods/Service	Community Org. C	Service
Community Org. 2	Service	Community Org. D	Service
Community Org. 4	Service	Community Org. E	Goods/Service
Community Org. 5	Goods/Service	University A	Service
Faith Based Partner 1	Goods/Service	Faith Based Partner A	Goods/Service
Faith Based Partner 2	Goods/Service	Grant A	Service
University 1	Goods/Service	Parent/Teacher Org.	Goods/Service
Faith Based Partner 1	Goods/Service		
Faith Based Partner 2	Goods/Service		
Parent/Teacher Org.	Goods/Service		
Total Hours Per Week: 100		**Total Hours Per Week: 75**	

Note. Two participating schools' types of services provided and estimated total time donated per week by site for the 2018-19 School Year.

Student behaviors and supports. A large volume of codes were dedicated to the response to student behaviors and supports in place. In order to further understand the student needs and behaviors at each school, and to control for any vast discrepancies in supports, participants took the Adverse Childhood Experiences (ACE) questionnaire on behalf of their students. They were asked to fill in results based on the average attendee of their school site. This was a slight modification of the measure's original intent, where individuals fill out the form on their own behalf. The results of the five questionnaires were then averaged to produce an approximation of the amount of trauma staff members were aware their students had encountered. This index is derived by the researcher and represents and alternative usage of the original ACE metric.

The ACE questionnaire contained 10 items regarding a range of possible traumatic childhood experiences in three categories: a) abuse, b) neglect, and c) household disfunction. Questionnaires were scored on a scale of zero to 10 with 10 representing the highest level of trauma experienced and zero representing the lowest.

Higher ACE scores were associated with lasting negative impacts later in life. These included heightened propensity for risky behaviors and greater risk of health issues, potentially resulting in opportunity costs, and lower quality of life (Centers for Disease Control and Prevention, 2019). Staff members at Southside Elementary showed slight variations in their data with participants self-reporting student trauma scores ranging from 3 to 6. Results were as follows: 3, 3, 4, 4, 6. Once averaged, the overall ACE score for Southside students was a 4. The participant estimating the score to be 6 schoolwide was one of the teacher participants. This also was the respondent who

displayed the most dissent with the leadership style and the direction of Southside

Elementary, stating:

> The kids are more disrespectful and just, indifferent. Lots of kids have lots of
>
> issues. By the time they get to me, they're older and already reading two to three
>
> years behind grade level, and then they'll get lost. Especially the boys. The reality
>
> is that they're going to be out by the time they're 16. (Participant 3, Personal
>
> Interview, January 29)

Staff members at Northside Elementary were very consistent in the amount of

trauma they expected the average student had encountered. Each respondent self-selected

answers correlating with a score of 8. Therefore, the average overall ACE score for

Northside students was an 8, which was double the Southside score, indicating drastically

higher perceived levels of trauma at Northside Elementary compared to Southside

Elementary

This approximation provided insight into the types of students the schools served

and illuminated areas in which additional supports may be needed. An approximate four-

point difference between ACE averages at the sites indicated differences in the

populations served.

Staff from both schools spoke to the need to keep children actively engaged in

classrooms, and provided their arsenal of strategies for ensuring this happened.

Southside participants explained they utilized a buddy room system where children can

deescalate in a neutral environment. They are sent back to class once they have resumed

control of their emotions. In cases where the child cannot self-soothe, they have a

conversation with the in-school suspension (ISS) monitor, the principal, the AIC, or the

counselor or social worker, if available. However, with a part-time nurse, social worker, and counselor, there was not always a consistent person. An administrator in the building stated, "If someone's out, it's rough. You do what you can, but you cannot physically be everywhere and meet everyone's needs. More staff would ease that burden" (Participant 5, Personal Interview, 2019 February 1). Tables 5 and 6 below show the types of supports available to each site as well as an approximate total time per week each support is utilized by the school site.

Table 5

Southside Elementary's Behavior Supports, Availability, and Utilization by School

Behavior Support	Time per Week Available	Time per Week Used
In School Suspension	As needed	6 hours
Conversation with Administrator	As needed	2 hours
Part-Time Counselor	15.5 hours	15.5 hours
Part-Time Social Worker	15.5 hours	15.5 hours
Buddy Room	As needed	40 visits per week
Home Visits	As needed	1 visit bi-weekly
PBIS interventions	As needed	4 hours

Note. The intervention data was collected in Spring 2019.

Table 6

Northside Elementary's Behavior Supports, Availability, and Utilization by School

Behavior Support	Time Per Week Available	Time Per Week Used
In School Suspension Room	As needed	4 hours
Conversation with Dean	As needed	3 hours
Part-Time Counselor	15.5 hours	15.5 hours
Part-Time Social Worker	15.5 hours	15.5 hours
Care Team	2 hours	2 hours
Buddy Room	As needed	25 visits per week
Home Visits	As needed	1 visit per week
Football phone	As needed	12 calls per week
Therapist with 15 student case load	32 hours	32 hours
PBIS Interventions	As needed	4 hours

Note. The intervention data was collected in Spring 2019.

Northside Elementary teachers also utilized buddy rooms, and staff members emphasized their commitments to learning the individual strategies that would best support some of their more extreme behavioral outliers. Participant 9 said:

There's about four or five [behavioral outliers] in every class, honestly. I call them my 'high fliers'. These are kids who for whatever reason—trauma, embarrassment at being behind, lack of socioemotional skills—do not respond

well to our classroom consequence hierarchy and will resort to extreme behaviors.

That's why we have a care team that tries to find the root cause for each

individual student. If we can find the cause, we can better support them.

(Participant 9, Personal Interview, 2019, February 7)

For the most part, supports targeting behaviors were relatively similar. However,

the biggest difference was with Northside's use of what they've termed the "Football

Phone," which was described as a cell phone that rotates amongst administrative staff.

The Football Phone was called or texted by teachers who were in need of immediate

assistance. This could mean deescalating a student in their care, responding to a safety

issue, or any situation deemed urgent or an emergency. The cases reported to the football

phone were documented with student and teacher information, timing and duration of the

incident, and potential triggers. These cases were addressed in future care team meetings.

Care teams craft solutions for children with reoccurring behavioral episodes, using the

football phone documentations as another data set to inform the steps in the

individualized behavior plans. One participant said:

[The football phone] is not just a way for teachers to be supported, but also helps

us target and document the times in which these situations are occurring and what

is triggering them. It's made a huge difference in the amount of behavioral issues

we've seen. We're not just addressing the issue in the moment. We are actively

working to provide a long-term solution tailored to individual children.

(Participant 7, Personal Interview, 2019, March 8).

When speaking to supports that were not in place, both sites were normed in their

opinions. More mental health professionals – therapists and counselors and social

workers – were cited as an urgent need in 100% of interviews. Participant 1 firmly argued:

It's absurd to have a part time counselor, a part time social worker. They are overworked and can't handle the cases they have as it is, but then we're throwing multiple schools into the mix. Think about what that does for consistency too, for students who need higher levels of support and guidance, and for placing them in classrooms without having resolutions in place to handle their struggles. Now, ask them to test, ask them to grow. That's not a reasonable demand. (Participant 1, Personal Interview, 2019, January 29)

Scantron Performance Series Data

Third through sixth grade individual student's test scores were collected from both Fall of 2018, which included September 10th through October 5th, and Spring of 2019, which was February 25th through March 22nd, were the testing windows. Scores were collected from both Reading and Mathematics test sessions. The Performance Series tests were adaptive in nature and generate Scaled Scores (SS) to determine skill proficiency independent of grade level. In addition, Normal Curve Equivalents (NCE) for each student were calculated based on their National Percentile Rankings, and changes in NCE were used to determine student level growth compared to their peers who started at a similar level.

Scaled Score Analysis. Scaled Scores were a measure of the skills and knowledge students' possessed in a given subject area and are used to track progress over time (Performance Series, 2019). Individual student Scaled Scores were compiled for students' fall and spring tests in both Reading and Mathematics, and the changes in score

recorded as that student's Scaled Scored growth in each subject. The difference in scores were averaged, giving each location a mean change in Scaled Score for Reading, and one for Mathematics (see Table 7).

Table 7

SCANTRON Scaled Score Gains by Site and Content

Reading Scale Score Gains					
School Site	Student Count	Students Enrolled	Fall Mean SS	Spring Mean SS	Mean SS Change
Northside Elementary	87	233	2095	2323	228
Southside Elementary	57	153	2243	2261	18
Math Scale Score Gains					
School Site	Student Count	Students Enrolled	Fall Mean SS	Spring Mean SS	Mean SS Change
Northside Elementary	86	233	2154	2221	67
Southside Elementary	54	153	2221	2269	48

Note. These scores were for the 2018-2019 School Year.

Statistical analyses were run through SAS (2014) in order to compare mean gain scores between Northside Elementary and Southside Elementary.

Math Scaled Score Tests. Oneway Analysis of Variance of Scaled Score gains in math test results indicated a lack of significance in score differences between the two schools, Northside and Southside elementary schools. As shown in Figure 3 and Table 8 below. The means of each data set were similar. A t-Test, assuming equal variances,

demonstrated with a 95% confidence interval estimated the differences in gain scores had a high probability of occurring due to random factors. Therefore, the schools showed similar levels of growth during the time of data analysis.
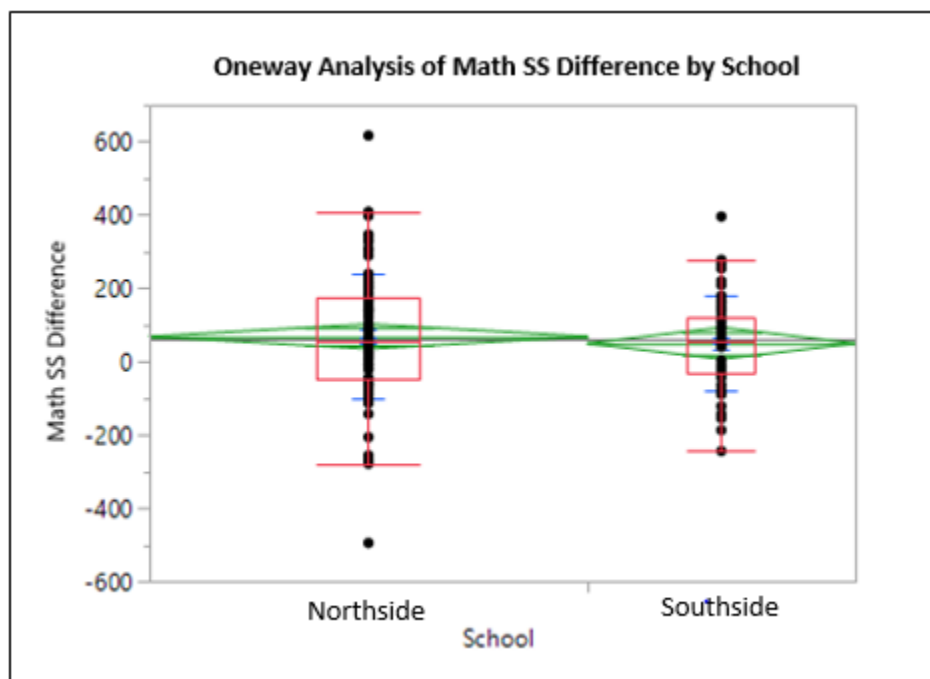

Figure 3. One-way analysis of variance of the Math SS test differences by school.

Table 8

Math Gains Scaled Score One-way Anova

Site	Student Count	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%	p Value
Northside	85	68.47	170.45	18.49	31.71	105.24	0.5019
Southside	52	49.98	128.62	17.84	14.17	85.79	

Note. Means for one-way anova in both school's Mathematics Scaled Score changes. Data collected from 2018-2019 School Year.

Reading Scaled Score Tests. Oneway Analysis of Scaled Score gains were conducted to determine the significance of gains discrepancies between school sites. The results of a t test assuming equal variances indicates – with a t value of 1 – that it is statistically improbable for the disparities in growth levels to occur randomly. Figure 4 and Table 9 below summarize the test results and show the data in formatted in a box and whisker plot.
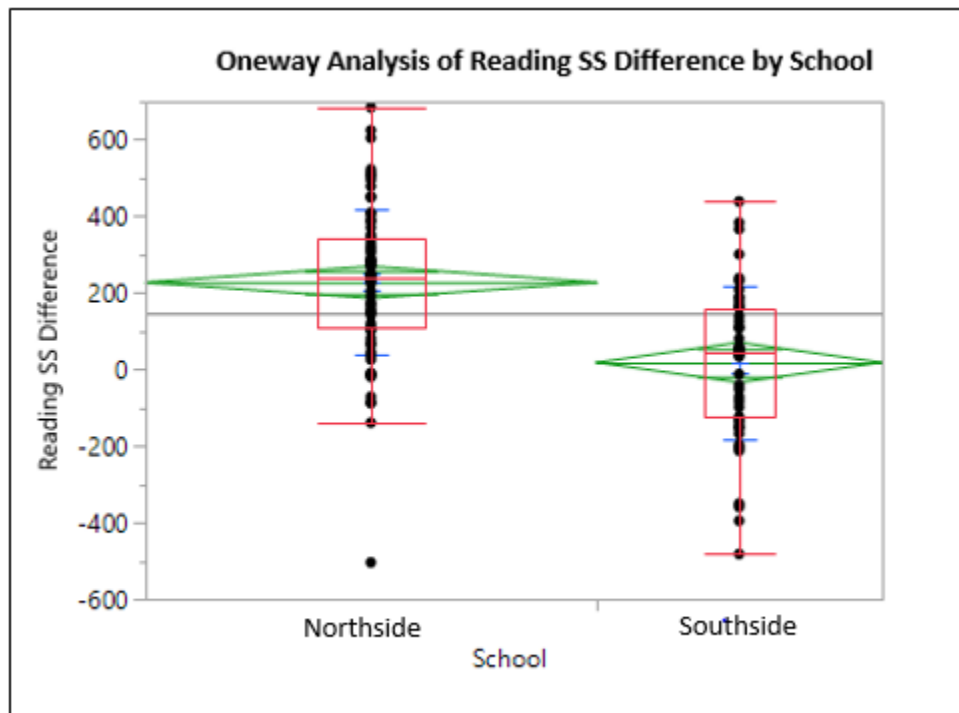

Figure 4 – Oneway Analysis of Reading Scaled Score by School

Table 9

Reading Gains Scaled Score One-way Anova

Site	Student Count	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%	p Value
Northside	85	134.92	216.11	23.44	88.30	181.53	<.0001
Southside	54	18.37	200.51	27.29	-36.36	73.10	

Note. Data was from the 2018-2019 School Year.

The data has an R-squared model fit of .219, which accounts for 22% of the variance explained by school (see Table 10). Considering the small sample size of 137 scores and not taking into account other variables, such as teacher quality, student drive, or time on task, the R-Squared warranted additional investigation.

Table 10

Reading Gains Summary of Fit-- Oneway Anova Summary of Fit

Gains	Numerical Values
Adj R-squared	0.21
Root Mean Square Error	194.38
Mean of Responses	146.48
Observations	139.00

Note. Data rounded to the tenth and collected during the 2018-2019 School Year from both schools.

Normal Curvature Equivalent. Reading results also were submitted to tests using the Normal Curvature Equivalent. Math results were not subjected to these tests since they failed to show significant variance. The NCEs were determined by placing student

National Percentile Rankings along a normal curve. Since they were equal interval scores they were used to determine the rate of acceleration between a student and his or her peers starting at the same ability level. Any gains in NCE indicated the student accelerated more rapidly than his or her peers, while a negative NCE indicated the student demonstrated less growth than his or her peers. Since the NCE was a normed equal spaced score, it can be used to calculate group averages. In this case, Northside Elementary School's mean NCE score for the 2018-19 School Year was 2.7, indicating an accelerated school-wide growth trend with a distribution skewed towards positive change (Table 11). Southside's mean NCE for the 2018-19 School Year was -7.3, indicating slower school-wide growth trajectory skewed towards negative change (Table 11). These results were aligned to the Scaled Score test data and statistical analysis.

Table 11

Means for Oneway Anova Reading NCE Changes by School

Site	Student Count	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%	p Value
Northside	86	2.70	9.57	1.03	0.65	4.75	<.0001
Southside	57	-7.30	11.14	1.48	-10.25	-4.34	

Note. Data rounded to the tenth and collected during the 2018-2019 School Year from both schools.

One way t-tests showed a probability of .0001 that the changes in NCE by school occurred at random. The R-Squared was 0.187, showing fit similar to that of the SS reading test and further indicating that there is a high probality that NCE score variations cannot be fully explained by chance, and were due to differences in school factors.

A normal quantile plot charts each school's individual data points and includes a line of fit to show the distribution of the changes. The Northside NCE changes are skewed towards positive change, while Southside NCE changes were distributed equally among both sides of the mean, as illustrated in Figure 6 below.
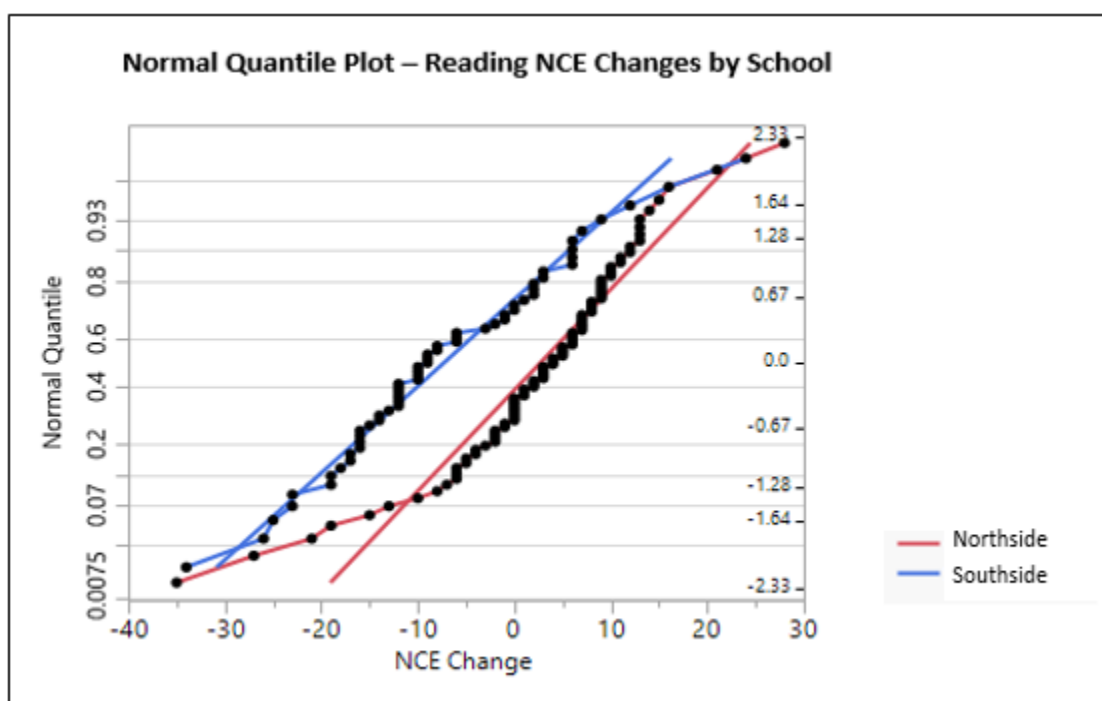

Figure 6. Normal Quantile plot NCE reading changes by school. Data collected during the 2018-2019 School Year.

Results Summary

Chapter 4 housed the results of this comparative case study, analyzing the collected data points and relating them to the study's research questions. Assessment data from two schools were analyzed and compared during this research, both neighborhood schools serving elementary-aged students within single school districts, but with differing geographical locations and historical levels of academic outputs. Data points included: a) site visits, b) staff interviews, c) school, d) staff demographic

information, and e) benchmark test results. The combination of these data points served

as indicators of both the academic

and cultural health of a building and were used to formulate a rich picture of each site and

facilitate recommendations for future growth strategies.

Descriptive analyses were conducted, and the results presented in relation to:

1) Student academic outputs and growth levels

2) Internal and external resource availability and utilization

3) Staff satisfaction and morale

Coding occurred on multiple levels, starting with manual open coding followed

by selective and finally theoretical coding. Coding software and mind mapping platforms

aided in organizing and interpreting results. Analysis of the 27 open codes were

condensed into five themes:

1. School and staff levels of adaptability

2. Staff satisfaction and connectedness

3. Student Supports

4. Community Utilization

5. Unified school vision/mission

These themes were used as gauges as to the overall building cultural climate and

implications for student academic output.

The student-level SCANTRON Performance Series benchmark fall and spring

test score growth were compared by school in the content areas of Mathematics and

Reading. Differences in Mathematics growth between the school sites was not shown to

be statistically significance. Differences in Reading growth was shown to have statistical

significance, with Northside Elementary outperforming Southside Elementary. Reasonings for this and suggestions for both site's future growth will be discussed in the next chapter.

Ethics and Human Relations

The research occurred within the district of employment of the researcher. Prior interactions between the researcher and the participants had the potential to alter the researcher's objectivity and to shape the interpretation of data. Creswell (2014) cautioned against performing research at one's place of work. In order to minimize this threat, verification methods, including triangulation of data and thick case descriptions were implemented. In addition, to ensure that participants felt valued and were subjected to minimal risk, member checking was be utilized so that research participants could view the findings and give their input as to their validity.

Having prior experience with the participants and insight into the school sites meant that gaining the cooperation of research participants was simplified. Initial conversations with the proposed research sites, as well as with the deputy superintendent of accountability and assessment, indicated there was a strong interest in the project. Participants' data was guarded by labeling each participant's information with a number rather than their name, and data was kept on a password protected computer. In addition, all research participants signed their informed consent, outlining that they were aware of the steps in the research and the purpose of their role.

Chapter Five: Discussion of Results

This chapter seeks to further analyze the results of the collected data, constructing deeper meaning from the five building-level themes determined to have influence over students' academic outputs. The themes to be considered are:

1. School and staff levels of adaptability

2. Staff satisfaction and connectedness

3. Student supports and behavior interventions

4. Community support and utilization

5. Unified school vision/mission

In addition, in Chapter Five, the researcher will detail the observations and results of the study to formulate tailored suggestions for each building in order to further facilitate student academic growth. The chapter concludes with an overview of the limitations of this study, potential areas for future research, and an overarching summary of results and recommendations.

This study concludes that while there were myriad factors influencing the academic output and overall health of a school, staff satisfaction and feelings of connectedness, as well as the ability of a building to operate with creativity and adaptability provide some of the greatest impact. These resources were shown to outweigh more traditionally valued nonmonetary resources such as teacher experience or volunteer hours. While all have the ability to contribute to the overarching academic success of students, these two key components showed a direct, larger impact.

School and Staff Levels of Adaptability

Levels of adaptability was a major theme of this study. Comparison across two school sites highlighted the differences in available nonmonetary resources.

The theme of adaptability had the greatest amount of open codes and also represented the greatest level of difference amongst the two school sites. As noted by Participant 8 in his/her interview, Northside Elementary responded to a district push for bi-weekly formative assessments by crafting guided reading groups that strategically administered the assessments twice per week and then targeted specific language and reading skills during the other three school days. This showed adaptability and a creative solution to a requirement that Participant 9 stated, "wasn't going to fit the way it needed to" (Participant 9, Personal Interview, 2019, March 4). This push towards targeted, differentiated reading instruction was seen in the SCANTRON benchmark data with the mean NCE score showing that the Northside Elementary students grew, on average, at a rate more accelerated than their peers across the nation. Projecting this growth across multiple years indicated that Northside Elementary would be successfully decreasing the academic achievement gaps traditionally found in predominately low income, urban schools (Talbert-Johnson, 2004).

Adaptability and creativity were not ends in themselves, however. There were limitations to the levels of change possible while still meeting requirements in an acceptable manner. In the case of Northside Elementary's decision to adapt their formative assessment administration, the shift in focus to small group instruction at the entire school level did not translate to the mathematics formative assessments. Instead, the interventions were targeted solely towards reading. Participant 10 stated, "There's

only so much time in the day. We do the best we can with the amount of time we have, but we can't be everywhere at once" (Participant 10, Personal Interview, 2019 March 4).

Southside Elementary followed a more traditional, fixed model of operations. Adherence to school district guidelines was marked by staffing allocations, deployment of formative assessments, upholding the framework for responses to disruptive student behaviors, and overall staff attitudes towards their roles. The latter observation was concisely captured by Participant 3 in her interview when, sharing her thoughts on district responses to over-testing concerns, she stated, "It's the way things are. They tell us what to do and we do it. Sometimes it doesn't seem to make sense, but what can do you except go along with it?" (Participant 3, Personal Interview, 2019, January 29)

Staff Satisfaction and Connectedness

Staff satisfaction and overall attitudes combined to be one of the largest themes that emerged from the study. While determining the morale or culture or overall attitude of a building was by no means an exact science; indicators can be pinpointed, and evidence gathered to inform the observer and draw conclusions. Through interviews with staff members, building observations, and field note collection, an overarching picture as to staff members' attitudes and levels of connectedness were determined.

When school staff was invested and felt supported by building administration, they were in turn able to project that support and positivity onto students. This was in line with contemporary literature, such as Dutta, and Sahney's (2016) findings that different administrative leadership practices have an (indirect) relationship to student outcomes. Similarly, the idea of teacher efficacy being influenced by positive feelings towards school administrators was also emerging within educational scholarly literature.

Correlations between teacher satisfaction, goal structures (mission) and teacher self-efficacy have been suggested (Skaalvik & Skaalvik, 2017).

Student Supports and Behavior Interventions

The study also highlighted a need for greater available behavior resources for students, especially in schools serving students exposed to high levels of trauma. Through the implementation of the football phone system, Northside Elementary was able to better respond to its students' needs and to develop specific strategies around keeping them academically engaged. The success of this program indicates need for closer attention to student behavior responses and corroborates school assertions that enhanced behavioral resources –specifically staff positions dedicated to therapy, counseling, and social work – would prompt accelerated levels of student academic growth.

Both sites indicated that behavioral supports were at the top of their most urgent needs, which aligns with a recent influx of research detailing the positive impacts of socioemotional learning strategies (Morris, McGuire, & Walker, 2017; McClelland & Tominey, 2017; Walton, Romero, Smith, Yeager, & Dweck, 2015). Interestingly, these behavioral supports can be effective, even if schools are only able to implement small-scale interventions. For example, two university researchers published their findings on social-psychological interventions as an attainable means of lessoning the achievement gap in underperforming schools. In Walton and Yeager (2011) study, they stated:

Recent randomized experiments have found that seemingly 'small' social-psychological interventions in education — that is, brief exercises that target students' thoughts, feelings, and beliefs in and about school —can lead to large

gains in student achievement and sharply reduce achievement gaps even months

and years later. (p 267)

The school-level desire for additional behavioral resources contrasted with the

district-level desire for additional testing data points. There seemed to be a profound

disconnect between what school staff viewed as dominant needs and what their district

administrators saw as non-negotiables. During this study, the tension between district-

level directives and school perceived needs arose quite frequently. Feelings of dissent or

contention with district decisions were present in many of the staff level interviews.

While this has been arguably a natural occurrence with any power hierarchy, the levels to

which staff expressed feeling that district mandates were inflexible or did not serve the

needs of students was notable. Taking into consideration how the idea of staff

connectedness and feelings of satisfaction at their site translated into academic gains

indicates that it would behoove districts to attempt to bridge this gap, avoiding

dissatisfied staff.

Community Support and Utilization

Geographical location and proximity to differing community resources meant

there has been an inherent level of heterogeneity within all school sites. Each location

had unique assets and capabilities on which to capitalize. With this principle in mind, a

school's ability to survey existing resources and apply them in creative, flexible ways

enabled more student needs to be met, translating to higher levels of building stability

and positive influences on academic outputs. Additionally, awareness of resources and

actively implementing their strategic utilization fosters a sense of ownership within the

building, relating to an additional theme of staff connectedness to the school mission and to each other.

It was notable that while Southside Elementary School had more available community supports than Northside Elementary School, it was the targeted use of supports and the careful cultivation of community relationships that showed influence. Being adaptable in how resources were utilized and frank in requests to community partners has enabled schools to draw more of the supports they needed. And, Northside was able to use their strong mission to specifically ask for the resources they needed. According to the participants' responses, if the community partners didn't immediately have the ability to grant the request, there was enough of a solid network established that oftentimes, through connections and outsourcing, requests were able to be met.

Unified School Mission/Vision

In conjunction with levels of connectedness, the idea that connection to the school site mission influenced staff effectiveness emerged from this study. When staff bought into the school's overarching goals and mission, they were able to operate more collaboratively and synergistic gains were observed. Staff at Northside Elementary were able to clearly and uniformly to state the school vision, but also showed they had internalized it. Staff was clearly invested in the goals and mission of the school, fueling them to take the steps to meet those goals and live out the mission, but also with a sense of higher purpose. This staff buy-in was shown to mitigate some of the discrepancies between the different school site's staff experiences and staff/student ratios.

Limitations and Further Research Areas

This study was the product of investigations and observations from the researcher's time working as a teacher and data analyst for Saint Louis Public Schools. One of the limitations of this study was the scope. Because of how individualized each community was, it was impossible to perfectly translate results to a broader scale. However, the nature of the study and the processes used can be replicated and larger-scale conclusions can be drawn based on the demographics and geographical locations of the school sites.

One of the limitations to this study was the imperfect means of measuring qualitative categories. Adaptability, cohesion, and overall building morale were all inherently subjective in nature. Therefore, care was taken to add multiple levels of coding in order to increase the validity of the findings. Further research might consider taking the categories and assigning quantitative measures in order to more deeply analyze and compare their impact on test scores. In addition, a larger sample size might be used in order to magnify the results to a broader population.

This study was also limited in that it explored what was perhaps a more uniquely urban phenomenon—the vastly different student, community, staff, and resource landscapes of individual schools within a single district. Therefore, similar studies on a larger scale might not see the same results if using more rural districts with primarily homogenous student and community components. Additionally, results and indicators of success might have displayed a wide range of variance due to geographical location and community priorities. Further research could have replicated the overarching coding strategies and the nonmonetary resources tracked, however.

The idea of unified mission was not one that the researcher had expected to arise. This area of educational research could be strengthened and further explored by charting the change in outcomes for schools seeking to commit to a mission and actively pursue it versus those who are not actively seeking to pursue a specific mission. Research along these themes could strengthen the existing body of work relating staff self-efficacy to administrative behaviors and strategies.

References

Adams, C. (2010). Social determinants of student trust in high poverty elementary schools. *Analyzing school contexts: Influences of principals and teachers in the service of students*, 255-280.

Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *The Journal of Educational Research*, *100*(5), 311-323.

Auerbach, S. (2007). From moral supporters to struggling advocates: Reconceptualizing parent roles in education through the experience of working-class families of color. *Urban Education, 42*(3), 250-283.

Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. *Journal of Primary Prevention*, *24*(3), 243-262.

Becker, B. E., & Luthar, S. S. (2002). Social–emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, *37*(4), 197–214.

Berger, C., Alcalay, L., Torretti, A., & Milicic, N. (2011). Socio-emotional well-being and academic achievement: Evidence from a multilevel approach. *Psicologia: Reflexão e Crítica*, *24*(2), 344-351.

Berkowitz, B., & Wadud, E. (2003). Identifying Community Assets and Resources. *Community Tool Box, Chapter 3, Section 8. Lawrence: Work Group on Health Promotion and Community Development*. University of Kansas.

Blank, M. J., Berg, A. C., & Melaville, A. (2006). *Growing community schools: The*

role of cross-boundary leadership. Washington, DC: Coalition for Community Schools.

Borrero, N., & Sanchez, G. (2017). Enacting culturally relevant pedagogy: Asset mapping in urban classrooms. *Teaching Education*, *28*(3), 279-295.

Brooks, C. F., & Young, S. L. (2011). Are choice-making opportunities needed in the classroom? Using Self-Determination Theory to consider student motivation and learner empowerment. *International Journal of Teaching and Learning in Higher Education*, *23*(1), 48-59.

Caldas, S. J., & Bankston, C. (1997). Effect of school population socioeconomic status on individual academic achievement. *The Journal of Educational Research*, *90*(5), 269-277.

Carreón, G. P., Drake, C., & Barton, A. C. (2005). The importance of presence: Immigrant parents' school engagement experiences. *American Educational Research Journal*, *42*(3), 465-498.

Center for Disease Control. (2019). *Adverse childhood experiences and violence prevention.* Retrieved from https://www.cdc.gov/violence prevention/childabuseandneglect/acestudy/ace-graphics.html

Chavkin, N. F., & Williams Jr, D. L. (1989). Low-income parents' attitudes toward parent involvement in education. *J. Soc. & Soc. Welfare*, *16*, 17.

Condron, D. J., & Roscigno, V. J. (2003). Disparities within: Unequal spending and achievement in an urban school district. *Sociology of Education*, 18-36.

Cotton, K., & Wikelund, K. R. (1989). Parent involvement in education. *School Improvement Research Series*, *6*(3), 17-23.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Darden, E. C., & Cavendish, E. (2012). Achieving resource equity within a single school district: Erasing the opportunity gap by examining school board decisions. *Education and Urban Society*, *44*(1), 61-82.

DiGangi, M. L. (2017). *The relationship of socioeconomic status and school district funding to student achievement: A study of Illinois elementary school districts.* (Unpublished doctoral dissertation). University of Illinois.

Dearing, E, Kreider, H., Simpkins, S., & Weiss, H. (2007, Jan.). Family involvement in school and low-income children's literacy performance. *Research Digest*.

Dobbie, W., Fryer, R. G., & Fryer Jr, G. (2011). Are high-quality schools enough to increase achievement among the poor? Evidence from the Harlem Children's Zone. *American Economic Journal: Applied Economics*, *3*(3), 158-187.

Dorfman, D. (1998). Mapping community assets workbook. Strengthening community education: The basis for sustainable renewal.

Dorfman, D., & Fisher, A. (2002). Building relationships for student success: School-family-community partnerships and student achievement in the Northwest. Portland, OR: Northwest Regional Educational Laboratory.

Dotterer, A. M., & Wehrspann, E. (2016). Parent involvement and academic outcomes Among urban adolescents: Examining the role of school engagement. *Educational Psychology*, *36*(4), 812-830.

Dutta, V., & Sahney, S. (2016). School leadership and its impact on student achievement:

The mediating role of school climate and teacher job satisfaction. *International Journal of Educational Management*, *30*(6), 941-958.

Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. School Psychology Quarterly, Vol 23

Epstein, J. L. *School, family, and community partnerships: Preparing educators and improving schools*. Westview Press, 5500 Central Avenue, Boulder, CO 80301, 2001.

Evers, W. M., & Clopton, P. (2006). High-spending, low performing school districts. *Courting failure: How school finance lawsuits exploit judges' good intentions and harm our children*, 103-194.

Ferguson, C., Ramos, M., Rudo, Z., & Wood, L. (2008). *The school–family connection: Looking at the larger picture.* Austin, TX: National Center for Family and Community Connections with Schools.

Floyd, L. (1998). Joining hands: A parental involvement program. *Urban Education*, *33*(1), 123-135.

Fraenkel, J. R., & Wallen, N. E. (2015). *How to design and evaluate research in education. (9th ed.).* New York, NY: McGraw Hill Education.

Griffin, D., & Farris, A. (2010). School counselors and collaboration: Finding resources through community asset mapping. *Professional School Counseling*, *13*(5), 21-56

Hanushek, E. A. (2006). School resources. *Handbook of the Economics of Education*, *2*, 865-908.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed-methods research: A research

paradigm whose time has come. *Educational Researcher*, *33*(7), 14-26.

Kerka, S. (2003). Community asset mapping. *Clearinghouse on Adult, Career, and Vocational Education: Trends and Issues Alert*, *47*, 1-2.

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, *74*(7), 262-273.

Kyllonen, P. (2016). Socio-emotional and self-management variables in learning and assessment. *Handbook of Cognition and Assessment*, 174-197.

Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education*, 73-85.

Lewis, C., Watson, M., & Schaps, E. (2003). Building community in school: The child development project. *EQ+ IQ= best leadership practices for caring and successful schools*, 100-108.

Logan, J. R., & Burdick-Will, J. (2017). School segregation and disparities in urban, suburban, and rural areas. *The Annals of the American Academy of Political and Social Science*, *674*(1), 199-216.

Mapp, K. L. (2003). Having their say: Parents describe why and how they are engaged in their children's learning. *School Community Journal*, *13*(1), 35.

McClelland, M. M., Tominey, S. L., Schmitt, S. A., & Duncan, R. (2017). SEL interventions in early childhood. *The Future of Children*, 33-47.

McKnight, J., & Kretzmann, J. (1993). Building communities from the inside out. *A path toward finding and mobilizing a community's assets*. Community's Assets, Evanston, IL: Institute for Policy Research.

Mingers, J. (2001). Combining IS research methods: Towards a pluralist methodology.

Information Systems Research, 12(3), 240-259.

Mitchell, N. A., & Bryan, J. A. (2007). School-family-community partnerships: Strategies for school counselors working with Caribbean immigrant families. *Professional School Counseling*, *10*(4), 4-13.

Morris, T., McGuire, M., & Walker, B. (2017). Integrating social studies and social skills for students with emotional and behavioral disabilities: A mixed-methods study. *The Journal of Social Studies Research*, *41*(4), 253-262.

Murphy, J. F., & Tobin, K. J. (2011). Homelessness comes to school. *Phi Delta Kappan*, *93*(3), 32-37.

Necochea, J., & Cline, Z. (1996). A case study analysis of within district school funding inequities. *Equity and Excellence in Education*, *29*(2), 69-77.

Organization for Economic Co-operation and Development. (2017). *The funding of school education: Connecting resources and learning*. Paris: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264276147-en.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science*, *26*(6), 784-793.

Patterson, K. L., & Silverman, R. M. (Eds.). (2013). *Schools and urban revitalization: Rethinking institutions and community development*. New York, NY: Routledge.

Pavlakis, A. E. (2018). Reaching all families: Family, school, and community partnerships amid homelessness and high mobility in an urban district. *Urban Education*, *53*(8), 1043-1073.

Rubenstein, R. (1998). Resource equity in the Chicago Public Schools: A school-level

approach. *Journal of Education Finance*, *23*(4), 468-489.

Sale, J. E., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the quantitative-qualitative

debate: Implications for mixed-methods research. *Quality and Quantity*, *36*(1),

43-53.

Shinn, M., & Hirokazu Y. (Eds.). (2008). *Toward positive youth development:*

Transforming schools and community programs. Oxford: Oxford University

Press.

Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic

review of research. *Review of Educational Research*, *75*(3), 417-453.

Skaalvik, E. M., & Skaalvik, S. (2017). Motivated for teaching? Associations with school

goal structure, teacher self-efficacy, job satisfaction and emotional

exhaustion. *Teaching and Teacher Education*, *67*, 152-160.

Smrekar, C., & Cohen-Vogel, L. (2001). The voices of parents: Rethinking the

intersection of family and school. *Peabody Journal of Education*, *76*(2), 75-100.

Sobel, D. (2004). *Place-based education: Connecting classrooms & communities* (p.

105). Orion Society.

Stafanski, A., Valli, L., & Jacobson, R. (2016). Beyond involvement and engagement:

The role of family in school-community partnerships. *School Community Journal,*

26(2), 135-160.

Sui-Chu, E. H., & Willms, J. D. (1996). Effects of parental involvement on eighth-grade

achievement. *Sociology of Education*, 126-141.

Talbert-Johnson, C. (2004). Structural inequities and the achievement gap in urban

schools. *Education and Urban Society*, *37*(1), 22-36.

United States Department of Education. (2016, May). *The condition of education.* Washington, D.C.: National Center for Education Statistics.

Villanueva, G., Broad, G. M., Gonzalez, C., Ball-Rokeach, S., & Murphy, S. (2016). Communication asset mapping: An ecological field application toward building healthy communities. *International Journal of Communication*, *10*.

Waanders, C., Mendez, J. L., & Downer, J. T. (2007). Parent characteristics, economic stress and neighborhood context as predictors of parent involvement in preschool children's education. *Journal of School Psychology*, *45*(6), 619-636.

Warren, M. (2005). Communities and schools: A new view of urban education reform. *Harvard Educational Review*, *75*(2), 133-173.

Waters, S. K., Cross, D. S., & Runions, K. (2009). Social and ecological structures supporting adolescent connectedness to school: A theoretical model. *Journal of School Health*, *79*(11), 516-524.

Weng, S. S. (2016). Asset mapping for an Asian American community: Informal and formal resources for community building. *Psychosocial Intervention*, *25*, 55- 62.

White, K. R. (1982). The relation between socioeconomic status and academic achievement. *Psychological Bulletin*, *91*(3), 461.

Whitehurst, G. J., & Croft, M. (2010). *The Harlem Children's Zone, Promise Neighborhoods, and the broader, bolder approach to education*. Brown Center on Education Policy, The Brookings Institution.

Zins, J. E., Payton, J. W., Weissberg, R. P., & O'Brien, M. U. (2007). *Social and emotional learning for successful school performance.* New Haven, CN: Yale University.

A Study of the Impact of Inequitable Workplace Practices on

Women's Perception of Productivity and Connection

Claire Crapo

University of Missouri- St. Louis

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Table of Contents

Introduction

The purpose of this qualitative study utilizing semi-structured interviews was to understand and to determine if there were connections between inequitable treatment of women in the workplace and their perceptions regarding their productivity and connections at work. In this study, the researcher examined the treatment and experiences of women regarding salary negotiations, pay, and job responsibilities. The research studied women in administration in kindergarten through 12th grade and examined the varying experiences of women by race, ethnicity, and social class. The following overarching question guided this study: How do inequitable experiences of women impact the perceptions that women have regarding their productivity, connection, and job satisfaction?

I am passionate about this topic based on my own experiences working in kindergarten through 12th Grade administration. I have witnessed female colleagues struggle with unfair expectations, challenging salary negotiations, and lower pay for similar job responsibilities as male colleagues. While much has been written about inequity at work, I investigated the intangible and abstract qualities that affect one's investment in the workplace. The intangibles I explored were trust, collaboration, connection, and team functionality. In my own experience, I have experienced workplace practices that have frustrated me, but I have continued to meet or to exceed job expectations. However, after experiencing several frustrating rounds of salary negotiations, I felt a shift in my investment in my school district. Though I always took on additional work responsibilities, I experienced a variety of emotions, namely distrust and resentment. Although also invested in the mission of my organization, I questioned

whether I could continue to work in an organization that did not appear to value my efforts and outcomes.   Through my study, I sought to reveal the moment in a woman's tenure at an organization when the shift occurs in their investment in the organization.

Studies concerning women in the workplace have been common in many educational and business journals. Many researchers have studied and reported on the experiences of women at work in relation to treatment by superiors, compensation negotiations, and the topic of family-life balance. Much of the research that has been conducted covers the experience of women in higher-education and business sectors. There has been some research done on the experience of women in urban education administration. In the United States, most superintendents are men, while women make up largest percentage of educators. While research has been conducted on several aspects pertaining to women's experience at work, the researcher sought to explore the intersection between compensation, salary negotiations, retention of female staff to determine if the experience impacts workplace investment.

Through semi-structured interviews, the researcher gathered information and data on the experience women have at work when negotiating salary for a new position or revisiting compensation in a current position. The researcher also surveyed women across the country in kindergarten through 12th grades in administration. Through interviews, the researcher explored any possible intersections between the impact of negotiations and inequitable pay and treatment with an employee's perception of her efficacy and productivity. Next, the researcher interviewed and analyzed the interview transcripts to draw connections and conclusions between different experiences in a woman's tenure and the resulting impact on workplace connection.

The research questions were as follows:

1. What is the connection between salary negotiations and workplace morale?

2. What is the relationship between compensation and productivity in the workplace?

3. How do female leaders approach negotiation conversations with managers?

4. What prevalence of female leaders in urban education have been involved in negative experiences regarding compensation?

5. What is the impact of the above conversations on retention, workplace morale, and productivity?

6. What are the possible short- and long-term consequences of inequitable compensation on workplace outcomes?

The researcher conducted a series of interviews with administrators to gain insight into the questions listed above.

Literature Review

It was first important to establish an overview of what the literature says regarding the definition of inequity. According to the Oxford Dictionary (2019), gender equity has been defined as:

> The fair treatment of women and men, irrespective of their gender. This is distinct from gender equality, which references equality of access to resources, goods, and opportunities. Gender equity can therefore mean starting from the recognition that women globally have fewer resources than men and should therefore be given proportionally more resources than men to reach gender equality.

Many studies have been conducted throughout the years that have documented the gender pay gap. Historically, women have not been paid at the same rate as their male counterparts. There were many forces at play that allowed for this phenomenon to continue, namely gender stereotypes and societal norms. It must be noted there were many identities presented when women approached negotiation tables, and gender was only one identity that was explored in this paper.

When an employer extends an offer to a candidate for a position, the negotiation, whether explicitly stated, begins (Leibrant & List, 2012). When a job is offered to a prospective employee, employers do not always share that the proposed salary is negotiable (Leibrant & List, 2012). Researchers have found that when there is "no explicit statement of negotiation, men are more likely to negotiate a higher wage" (Leibrant & List, 2012, p. 26). However, when there was a clear expectation that negotiations were possible, women and men negotiated an equivalent starting wage. Along the same lines, Bowles and McGinn (2008) reported when ambiguity was present at the onset of negotiations, women

accepted lower salaries than men did. However, when candidates were given clear

expectations regarding the "appropriate standards of compensation" a differential between

women's and men's starting salaries was not present (Bowles & McGinn, 2008, p. 396).

The researchers also found "gender associations" coming from the hiring body had a

negative impact on negotiation outcomes for women (Bowles & McGinn, 2008, p. 396).

Another complicating factor regarding salary negotiations, as Bowles and McGinn (2008)

reported, were women's abilities to self-advocate. They found that women were not as

likely to self-advocate, but they were more likely to advocate on a behalf of a group

(Bowles & McGinn, 2008).

As mentioned, there have been many forces and identities at play when women

begin negotiating (Kolb, 2009). Negotiations often were complicated by "race, class, and

ethnicity" (Kolb, 2009, p. 516). Mentors, social supports, and professional networks also

had an impact on an individual's likelihood of having a successful compensation

conversation. According to Kolb (2009), "For African American women, limited access to

networks and mentors have negative impacts on compensation and other important

organizational benefits" (p. 520). Kolb (2019) called these negotiations "second

generation negotiations" and explained the following:

> The issues raised here are not about bargaining for a certain job and the
>
> accompanying compensation—they concern a much tougher issue of redefining
>
> the norms and expectations around what it takes to be seen as an appropriate fit
>
> and then to succeed in a given job or at a given level in an organization. (p. 523)

A vast amount of research has reinforced that all women face several obstacles when

negotiating for compensation and these challenges are multiplied when faced by women

of color. Research also has been conducted about how employers can equalize the playing field when it comes to negotiations, emphasizing transparency as paramount to this. According to Rosenfeld and Denice (2015), when "managers disclose financial information to employees" they make more than employees who do not receive salary information (p. 1062). Furthermore, when salary negotiations began, it was suggested that employers were transparent about "how salary offers are set and standardize the criteria used to make salary offers using a number of elements like job experience, educational experience, technical abilities, emotional intelligence, and other relevant factors" (Silva & Galbraith, 2018, p. 333).

Advantages regarding negotiations were just one part of an employee's experience regarding compensation. Once compensation was agreed upon, it had the ability to impact an employee's efficacy in several ways (Silva & Galbraith, 2018). First, many employees may be curious about the amount co-workers were paid to do the same or similar job (Shore & Strauss, 2012). In a study conducted by Shore and Strauss (2012), researchers surveyed the impact of pay on productivity and attitude. They studied the impact that various factors might have on work attitude and made the following conclusions,

> Outcome based equity inequity is particularly distressing to employees. This is
> not surprising given the significant impact that pay has on one's life in general.
> Therefore, the findings of the current study suggest that employers would be
> prudent to ensure that compensation system ensure internal pay equity (p. 685).

The above research shared information regarding the inequitable practices that placed

women at a disadvantage when negotiating for pay and the impact pay inequity had on a worker's attitude and productivity.

The following section will focus on women in urban education and the imbalance that still exists between men and women in this field. According to Trahan and Growe (2012):

> Female educators have historically struggled with inequalities that resulted in the exploitation of women as professionals. As colonial America developed their educational system, the prevailing thought was that the classroom was seen as the medium for socializing children…. Somehow society did not embrace these wonderful female qualities that were brought into the classroom. Instead, education became a duty best carried out by females with the teaching professional concurrently becoming one of minimal recognition. Unfortunately, these supportive attributes are often taken for granted and still, to this day, receive little value in our culture (p. 6).

While the education workforce has primarily comprised of women, much of society still has not viewed teaching as a valid profession. Many teachers have felt they were invisible and were not viewed as esteemed professionals. The most visible position in any district has been that of the superintendent. Over the past 30 years, women have increasingly moved into more elevated positions in school districts, but have hardly made a dent in the number of superintendents (Burkman & Lester, 2013). In 2002, 62% of women were in administrative positions, which was double the number of superintendents from 1972 (Burkman & Lester, 2013). However, they have not moved into the position of superintendency at this interval (Burkman & Lester, 2013).

Since women have still been underrepresented in school superintendency positions, it was important to explore the factors that surround the retention of superintendents. According to Grissom and Mitanni (2016), 20% of superintendents leave the position each year. Moreover, they noted that salary has been one of the main reasons superintendents leave the position (Grissom & Mitanni, 2016). Grissom and Mitanni (2016) wrote, "For each increase of $10,000 in annual salary, we estimate a reduction in the probability that the average superintendent turns over of about 2 to 3 percentages points in our preferred models, a substantively important reduction" (p. 383).

The research shared above outlined the struggle many women have face when negotiating compensation. However, they were represented in positions, such as deputy superintendents and other senior level positions (Silva & Galbraith, 2018). Since there has been much research documented on the impact of compensation and salary negotiations, it was important to explore the impact this had on women in the field of education, particularly in senior level positions (Grissom & Mitanni, 2016). Specifically, the researcher sought to explore if salary was the major influence on women staying or leaving their roles. There have been very few studies conducted in kindergarten and 12th grades education that document and report on this impact.

Chapter Three: Research Methodology and Design

The researcher employed qualitative research design using interviews and surveys and correlated survey and interview results to the participants' demographics. The three approaches to research consisted of qualitative, quantitative, and mixed-method. Creswell (2014) noted approaches are not "rigid, distinct categories" (p. 3). Qualitative design was aligned with questioning and interviews and often yielded the clearest picture to the results of the study. The researcher utilized the interview responses to "explore and understand the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2014, p. 12).

The planned participants for this study consisted of female administrators from school districts in the United States. The participants volunteered to participate in the study and their responses were confidential. The researcher found participants using social media, current classmates, and educator networks.

First, the researcher identified 31 women to participate. The female administrators were surveyed about their perceptions of productivity in the workplace relative to equity. Along with general demographic questions, the following questions were examples of the questions that appeared on the perceptions survey.

- Have you ever been paid less money than a male counterpart?

- Have you ever been frustrated at the amount of work you do?

- Are you someone who generally takes on extra responsibilities at work without asking for additional compensation?

- Have you ever asked for raise?

- If yes, on a Likert scale of one through five, rate your experience.

After the surveys were collected, the researcher analyzed trends amongst women based upon race, ethnicity, and social class. Next, the responses were analyzed the response to determine if women experience frustration and possible disinvestment in the workplace due to unfair salary negotiations and inequitable expectations. Once the survey data was collected, the researcher interviewed eight of the women surveyed. The interviews were semi-structured, as the researcher wanted to leave the possibility to probe deeper into certain responses. women who indicated on the survey that they were interested in having a follow-up conversation on their experiences. Some of the questions consisted of the following:

- Are you frequently asked to take on extra responsibilities?

- Why are you asked to take on extra responsibilities?

- Are men asked to take on these responsibilities?

- How do these requests make you feel?

- Have you ever felt dissatisfied with a salary negotiation?

- Have you ever felt dissatisfied with a conversation you had regarding compensation?

This information was used to gauge if and/or when a shift occurred in a woman's attitude towards her workplace.

Data Collection and Analysis

Data was collected by surveying and interviewing administrators and former administrators across the country. The interviews were semi-structured and consisted of prescribed and open-ended questions. Once the data was obtained, the information was organized, read, and then coded. (Creswell, 2014). The codes ensured the researcher

could analyze trends that emerged from the data. To ensure both qualitative validity and reliability, the researcher employed strategies suggested by Creswell (2014), including both sharing the bias the researcher brought to the study, while also sharing descriptive context around the experiences of the researcher during the study. After initial analysis of the data, categories were created to determine relationships amongst the data. After this was completed, the data analysis was organized under each research question to associate the data collected with the research questions.

After the data was coded, an ecosystem was built to reflect the relationship between women, identity, inequity, and shifts in perceptions (see Figure 2). The researcher used the Bronfenbrenner's model as the basis for this ecosystem (see Figure 1) (Boon, Cottrell, King, Stevenson, & Millar, 2012).
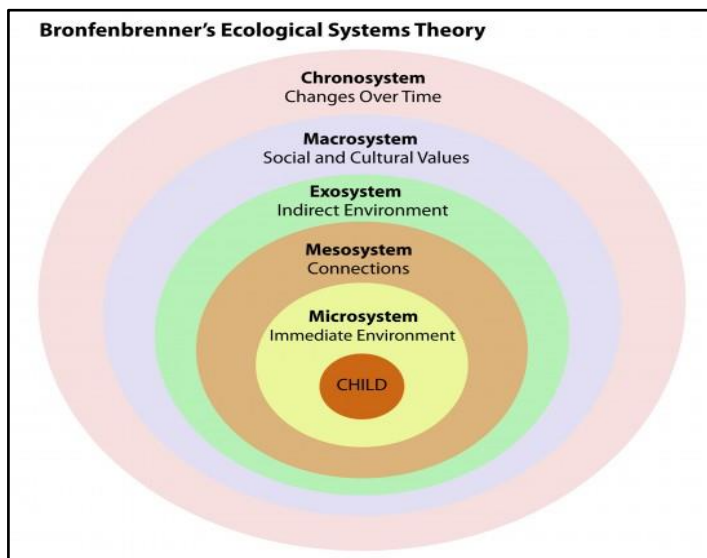

Figure 1. The Bronfenbrenner's Ecological Systems Theory Model (Boon et al., 2012).

Figure 2. Workplace Ecosystem

Discussion of Bias

As a district administrator who has been through extensive salary negotiations, the researcher disclosed having personal experiences with these situations, and the vast majority have been negative. The researcher's experience could have impacted her ability to remain unbiased. In addition, there are possibilities for biases and subjective interpretations based on my current position and relationship to many of the subjects in the study. Following each interview, I employed member checking with the interviewees.

To ensure research standards were followed, the researcher completed and passed the
National Institute of Health (NIH) training as well

Timeline

This research was conducted during Spring, Summer, and Fall 2019. IRB
approval was approved in Fall 2018. The survey was developed in Spring 2019 and sent
out to administrators in Summer 2019. Interviews began in late Summer and continued
into Fall 2019. The survey respondents and results informed the interview questions. The
data collection was ongoing during this time.

Research Questions

As the research began, there were key research questions that I worked to answer
through surveys and interviews. The surveys were distributed using snowball sampling to
women who have held or currently hold leadership positions in the education sectors
across the country. The research questions are listed below.

1. What is the connection between salary negotiations and workplace connection?

2. What is the relationship between compensation and productivity in the workplace?

3. How do female leaders approach negotiation conversations with managers?

4. What is the prevalence of female leaders in urban education have been involved in
   negative experiences regarding compensation?

5. What is the impact of the above conversations on retention, workplace morale, and
   productivity?

6. What are the possible short- and long-term consequences of inequitable
   compensation on workplace outcomes?

Demographic Data

Thirty-one women were surveyed and eight were interviewed. Participants in the surveys and interviews held various years of experience in education. Of the women surveyed, the majority, or 60%, were in the age range 30 to 39 years of age. Seventy-three percent of the participants identified as White, 23% as African American, and 4% Asian (see Figure 3).
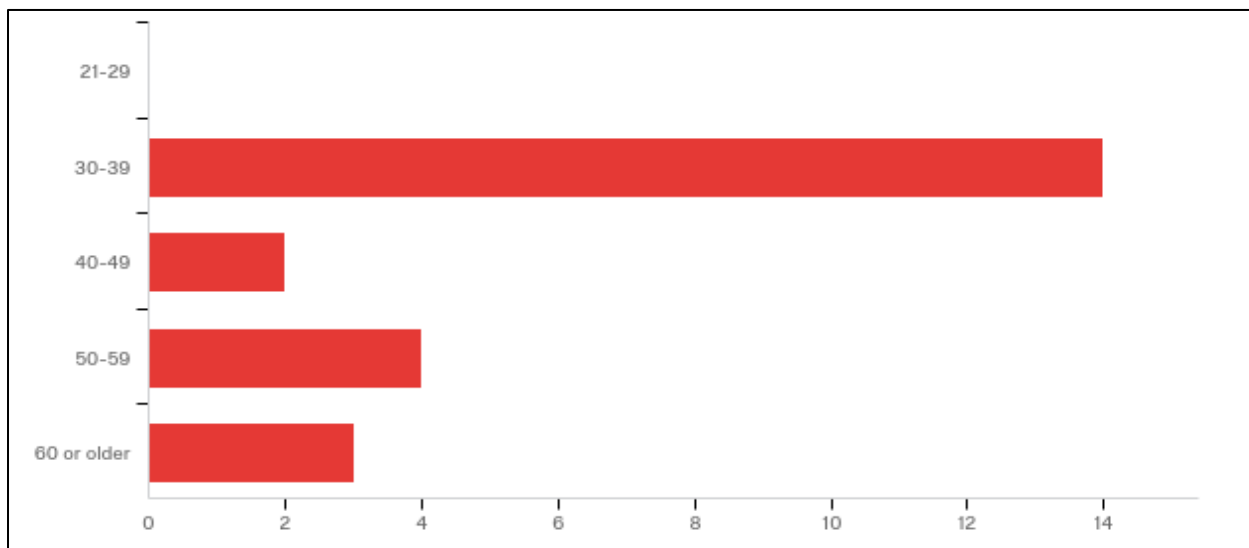

Figure 3. Age of Women Surveyed.

Of the eight women interviewed, 40% of the women interviewed identified as African-American and 60% interviewed identified as white. Eighty-eight percent of the interviewees were in the age range 30 to 39 years of age and, 13% were in the age range 40-49.

Surveys and Interviews

Participants completed a 31-question survey in which the researcher was able to gather a general sense of the following experiences from the perspective of being a woman in education.

1. Number of men vs. women holding senior leadership positions

2. Approach women used prior to asking for a raise

3. Experience asking for a raise

4. Connection to workplace

The questions asked respondents to identify the gender of their supervisors to ensure analysis of the responses could follow along the lines of gender of the supervisors as well. The interviews were semi-structured and based upon the questions asked in the surveys.

Through qualitative analysis of surveys and interviews, the following themes emerged.

1. Experience requesting a raise and the supervisor's gender

2. Inequitable work responsibilities relative to request for a raise

3. Pay inequity and request for a raise

4. Outcome of requesting a raise and relative job satisfaction, organizational connection

Experience Requesting a Raise and Supervisor's Gender. When surveying and interviewing the participants, I wanted to identify where there was a connection between an experience a female employee had asking for a raise relative to her boss's gender. As shown in Table 2, 50% of the women surveyed identified their bosses as male. Furthermore, the respondents were asked about their levels of anxiety in preparation of the request, along with the response from their manager or supervisor. When asked about the response from their manager/supervisor when requesting a raise, 50% of women with male bosses stated their bosses were either slightly dismissive or dismissive, while 75% of women with female bosses stated their superiors were open when requesting a raise.

Table 2

Relationship Between Gender of Manager of Anxiety in Preparation of Ask

Gender of Manager	Total	Little Anxiety	Moderately anxious	Neutral	No Anxiety	Very anxious
Male	71.4%	100.0%	50.0%	100.0%	50.0%	66.7%
Female	28.6%	0.0%	50.0%	0.0%	50.0%	33.3%
Non-binary	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unsure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note. Question Number 17 on the survey asked participants the following: "Please rate your experience while asking for a raise and anxiety in preparation of the ask."

Inequitable Work Responsibilities Relative Raise. The second theme that emerged from the participants' responses was the connection between an inequitable distribution of work between men and women and the denial of a raise when requested. When asked about the frequency in which they were asked to take on extra responsibilities, 87.2% of respondents stated they "Very Often" or "Always" took on extra responsibilities at work. In addition, 66.6% of women stated they were asked to take on more responsibility than men on a monthly basis or more.

Ninety-five percent of women surveyed stated they were frustrated by the amount of extra work they were asked to do as shown in Table 3. Participant 3 shared that her

boss frequently asked her to take notes during meetings, while never asking the men on the team to do the same. She stated, "And I'm not sure what gave off the personal assistant vibe" (Participant 3, Personal Interview, September 20).

After asking these questions, the researcher analyzed the frequency in which women were asked to take on extra work with the percentage of women who had requested as raise. In Table 4 below, 66.7% of women who responded that they are asked to take on more work than men on a daily basis, also requested a raise.

Table 3

Frequency of Women Taking Additional Responsibilities

_____

Frequency of Taking Additional Responsibilities	% of Women
Never	8.33%
A few times a year	25.00%
Monthly	33.33%
Weekly	20.83%
Daily	12.50%

_____

—

Table 4

Relationship between Responsibilities and Request for a Raise

_____

Frequency	Yes	No
A few times a year	83.3%	16.7%
Daily	66.7%	33.3%
Monthly	37.5%	62.5%
Never	50.0%	50.0%
Weekly	20.0%	20.0%

Note. The survey question was, "How much more often are you asked to take on responsibilities than your male counterparts?

The survey respondents also highlighted a deep inequity within the workplace when asked about whether they had ever been paid less money than a male counterpart with the frequency in which they take on extra responsibilities. The chart below depicted that 75% of women who always took on extra responsibilities at work were also, at the same time, paid less money than a male counterpart.
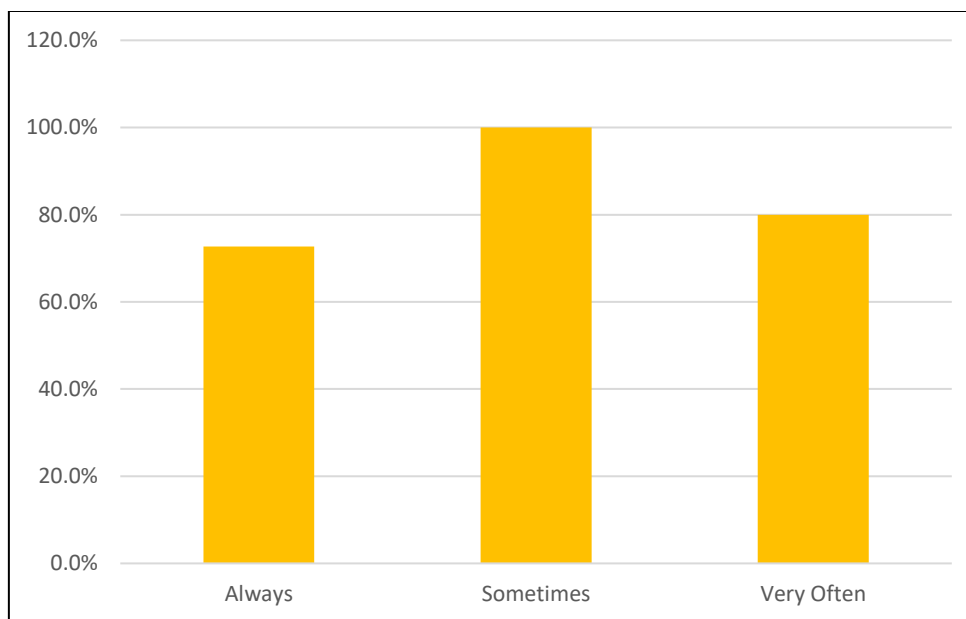
Figure 4. Pay Inequity and Frequency of Responsibilities varying between

"Always," "Sometimes," and "Very Often."

The third piece that emerged was the relationship between extra responsibilities

and the outcome of a request for a raise. As shown in Figure 5, the women surveyed and

interviewed who were asked to take on extra responsibilities on daily and weekly levels

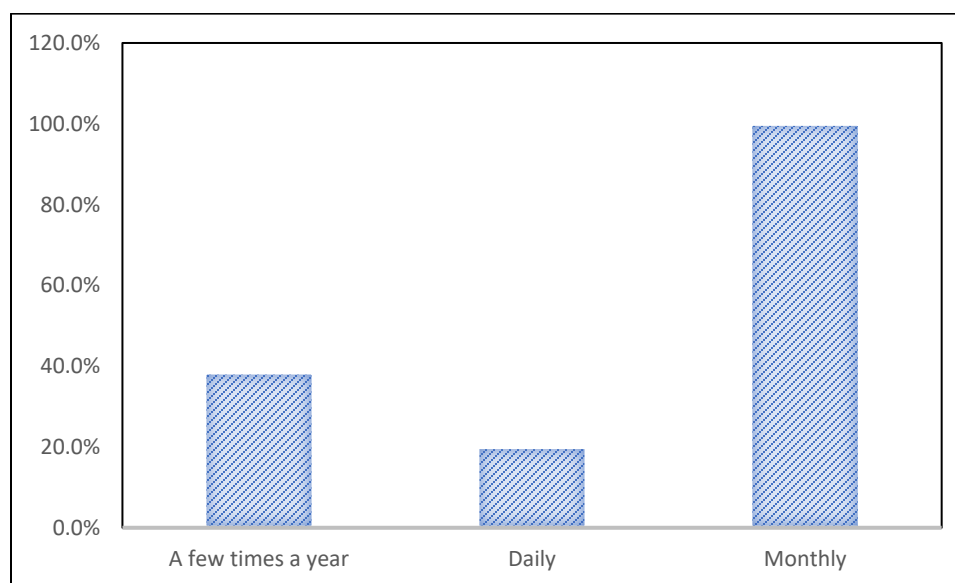were denied a raise when it was requested.

Figure 5. Denial of Raise and Extra Responsibilities, ranging to a few times a

year to monthly.

Pay inequity and request for a raise. In the surveys and interviews, I wanted to

see the connection between pay inequity and the outcome for a request for a raise. In my

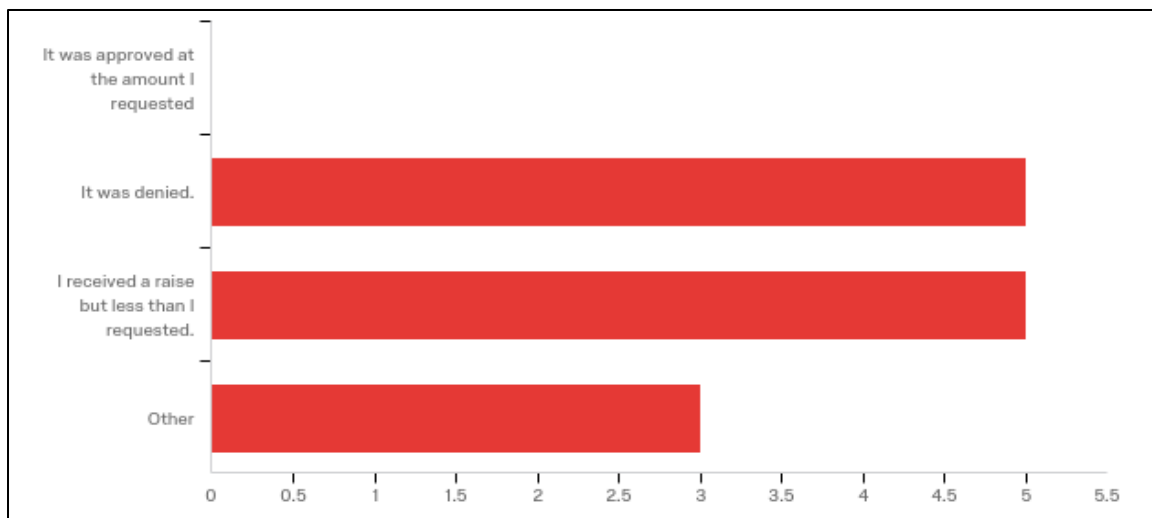surveys, I first analyzed how many women requested a raise.

Figure 6. Outcome of Raise Request.

Most women surveyed who requested a raise were either denied or received less than they requested as shown in Figure 6. My research uncovered a connection between the percentage of women who had either been denied a raise or received less than requested and receiving less pay then men. The figure below shows this relationship.

Outcome of requesting a raise and relative job productivity, organizational connection. The most predominate theme that emerged from both the surveys and interviews was the relationship between the outcome of the request for a raise and a woman's organizational connection. This is demonstrated in Figure 7. The first sub-theme explored was the relationship between the outcome of a raise request and a woman's overall productivity in her job. Of the women surveyed and interviewed, 74% of the respondents rated themselves as "Very Connected" to the mission of their organization when their tenure in the organization began. Ninety-two percent of the women surveyed indicated there was a time when their levels of connection to their organization decreased.
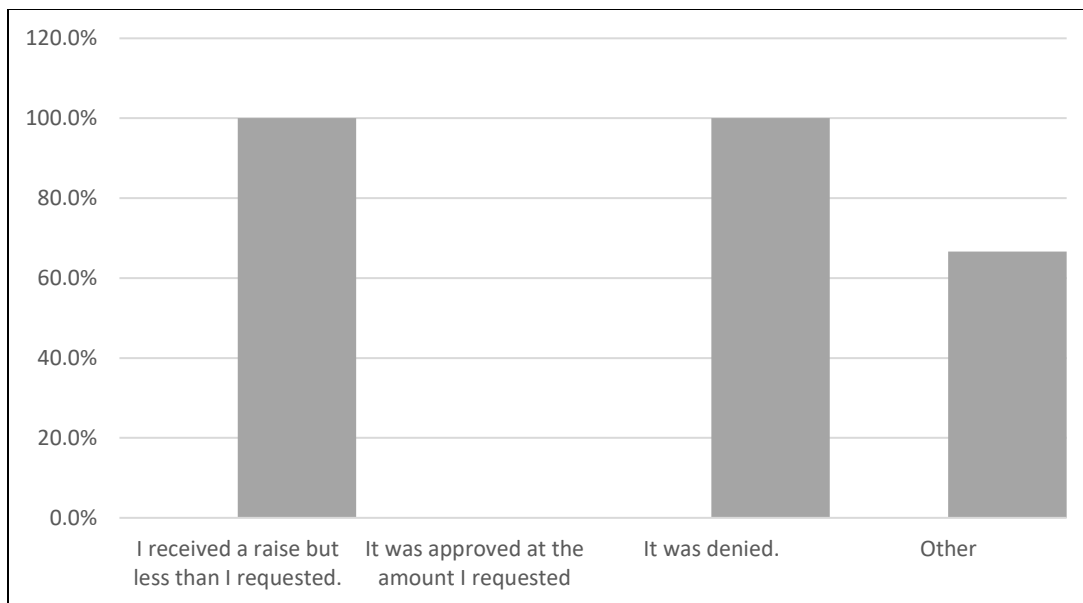
Figure 7. Relationship between outcome of raise and pay inequity.

Work environment and treatment by administrators were the top two reasons women attributed to their decreased connection. However, 50% of women surveyed stated their productivity was not impacted. Thirty percent surveyed indicated "Other" when asked about the impact on their levels of productivity. The comments included in Table 5 demonstrated that 100% of women continued doing at least what was required within their job description or more.

Table 5

Relationship Between Decrease Connection and Productivity

1	I began doing only what was required within my job description.	20.00%	4
2	I did less than what was stated in my job description.	0.00%	0
3	My productivity was not impacted.	50.00%	10
4	Other	30.00%	6
	Total	100%	20

Other – Text
asked to do more
I still did more than was required by my job description but felt less inclined to volunteer for extra duties.
I did the parts of my job that were most aligned with the reasons I'd taken the job.
Morale decreased
I still did more than was expected but the quality decreased
I did what was asked and expected, but not more/taking initiative to solve/resolve other matters like I had before.

The research revealed a connection between denial for a raise and connection to the organization. While survey respondents did not indicate it was their rop reason for a decrease, 80% of women who indicated they were denied their requested raise also indicated their levels of connection to their organization decreased. In Table 6 below this relationship is demonstrated.

Table 6

Outcome of Raise Request and Decreased Connecction

Q33: What was the outcome of your request for a raise? - Selected Choice

	Yes	No
I received a raise but less than I requested.	80.0%	20.0%
It was approved at the amount I requested.	0.0%	0.0%
It was denied.	80.0%	20.0%
Other	100.0%	0.0%

Note. The survey question stated, "Was there a time when your connection decreased?"

Interview Themes

There were three specific themes that emerged from the interviews. The following three themes were captured in the respondents interviews.

1. Relationship between job descriptions and gender

2. Absence of transparency for raise requests

3. Relationship between compensation requests and perceived value

Relationship between Job Descriptions and Gender. A common theme many interviewees discussed was that while their job descriptions shared expectations for their positions, women were more frequently held to a job description that had fewer boundaries. Participant 2 shared, "I just think there's always an expectation that you take

on more, and I think about how that comes with very little conversation or discussion"
(Participant 2, Personal Interview, 2019 September 15).

Participant 4 shared her perceived differences between men and women in the
organization. When referring to the expectation for men relative to their job description,
Participant 4 stated, "Their leadership role is clearly very defined and respected while
mine is more like gelatinous; it's allowed to be kind of flexible" (Participant 4, Personal
Interview, September 21).

When one interviewee was asked why she didn't request additional compensation for
her work she stated the following, "We are dealing with things on a shoestring budget.
And so I have guilt over taking a bigger piece of the pie…I have guilt if I ask for more
money, there there are less books for kids" (Participant 4, Personal Interview, September
21).

Absence of Transparency for Raise Requests. The researcher asked all participants
about their experiences requesting raises. All women interviewed had a negative
experience asking for a raise. The trend that emerged from the compensation
conversations was an absence of transparency for how the process works. Participant 2
shared, "I felt really offended with the whole process, because it already took a for me to
ask, you know for a raise" (Participant 2, Personal Interview, September 15).

All women stated the process for asking for a raise was based on heresay. Participant
1 stated, "I feel like there's a ton of ambiguity. No one knows the process….And it's very
much of an environment where we don't talk about it (Participant 1, Personal Interview,
September 30).

Participant 2 agreed and highlighted the heresay present in her organization. She stated, "Yeah, I think it's hearsay, because I think there are very well people that according to what I hear that have gotten raises and stipends. And then I hear that for other people that doesn't exist"(Participant 2, Personal Interview, September 15).

Relationship between Compensation Requests and Perceived Value. The most significant theme to emerge from the interviews was the connection between requests for raises and women's perceived value at an organization. While the women interviewed did not receive the raise requested, many commented on the impact the negotitations and the outcome had on their feelings of value and connectedness to the organization. One individual reflected on the outcome of her conversation with the Human Resource director stating, "Well, I mean, I never got any feedback…so yeah, it kind of makes you feel like what you do is not valued" (Participant 2, Personal Interview, September 15).

Another interviewee stated, "I would literally sit in human resources for like eight hours. Not joking. Over the summer I would show up in the morning and sit there for right hours" (Participant 4, Personal Interview, September 21).

When the researcher followed up and asked about the impact this experience had on her she stated, "It absolutely impacts the way I felt about working in my organization…I have resented this organization ever since" (Participant 4, Personal Interview, September 21).

When the researcher asked the women about the impact not receiving a raise had on their feelings of being valued, they all agreed it had a negative impact. One woman stated, "It's literally an opportunity to express their value for you. Because it's the only

thing that they can do other than give you nice words" (Participant 4, Personal Interview, September 21).

Chapter Five: Discussion

The surveys and interviews captured the perceptions women in educational leadership have towards distribution of responsibilities, pay, and requests for increased compensation. The survey and interview questions focused on determining the impact that inequitable distribution of responsibilities and pay had on a woman's perceived connection to her organization. In addition, several questions centered around the experience women have when requesting a raise and the outcome of these requests. I worked to find relationships in several of the topics. These topics and the relationships among them emerged as the key themes:

1. Experience requesting a raise and supervisor's gender

2. Inequitable work responsibilities relative raise

3. Pay inequity and request for a raise

4. Outcome of requesting a raise and relative job satisfaction, organizational connection

The emerging themes providing preliminary answers to the research questions that were posed at the beginning of the research.

1. What is the connection between salary negotiations and workplace connection?

2. What is the relationship between compensation and productivity in the workplace?

3. How do female leaders approach negotiation conversations with managers?

4. What is the prevalence of female leaders in urban education have been involved in negative experiences regarding compensation?

Female Leaders and Compensation Conversations

When surveying and interviewing female leaders, most female leaders indicated they had experienced varying levels of anxiety when preparing to ask for a raise. In addition, there was a greater likelihood of anxiety if a woman's boss was male. The majority of women also shared that when requesting a raise, they were either denied the request or received less than requested. Interestingly, the same women who did not receive raises at the amount requested also indicated they made less money than male counterparts and have been asked to take on responsibilities more frequently than their male colleagues. While inequitable pay between men and women has been established, employers should take notice of the increasing obstacles that women face along with inequitable pay. The women surveyed and interviewed expressed that facing inequitable pay, distribution of responsibilities, and a refusal for increased compensation were all experiences that negatively impacted their satisfaction at work.

Salary Negotiations and Workplace Connection

The women surveyed and later interviewed discussed their experiences requesting a raise and more specifically, the impact of the compensation productivity on their connection to their organization's mission. All of the women interviewed expressed a deep connection to their organizations' missions and high satisfaction when they first began working at the organization. However, they all admitted a decline in their connection with workplaces. While most of the women interviewed noted they requested raises that they felt they had earned based on the increasing responsibilities they took on,

all were denied at the amount requested. Over their tenures in the organizations, their connection to the organization decreased and this was attributed to several different factors. In the survey, women indicated that overall treatment by administrators and work environment were the primary reasons for this decline; however, interviews indicated compensation and requests for raises were tightly weaved into this disconnection.

While it has been established that disconnection occurred for many women in educational institutions, women shared this did not have any impact on their productivity. Some shared that they began doing what their job required and not more, but no one stated that their productivity was impacted.   The women interviewed all shared that they received less pay then men, were asked to take on additional responsibilities more than men, yet they remained as productive even without gaining the additional compensation requested.

Short and Long-term Consequences. The data collected in the surveys and interviews send a strong message to educational institutions around the distribution of responsibilities and approach to compensation requests. While it is unlikely that solutions to inequitable pay or distribution of responsibilities will shift as they are deeply ingrained in societal gender roles, managers and supervisors should reexamine how they share workplace expectations and consider their biases and approach to conversations regarding raises. In addition, Human Resource departments should examine and create a framework for compensation conversations to ensure equity in the conversations and aligned outcomes. Based on my research, the framework below represented the varying experiences and regulations that led to disconnection over time. Each of the circles represents an additional experience that built to cause further disconnection.
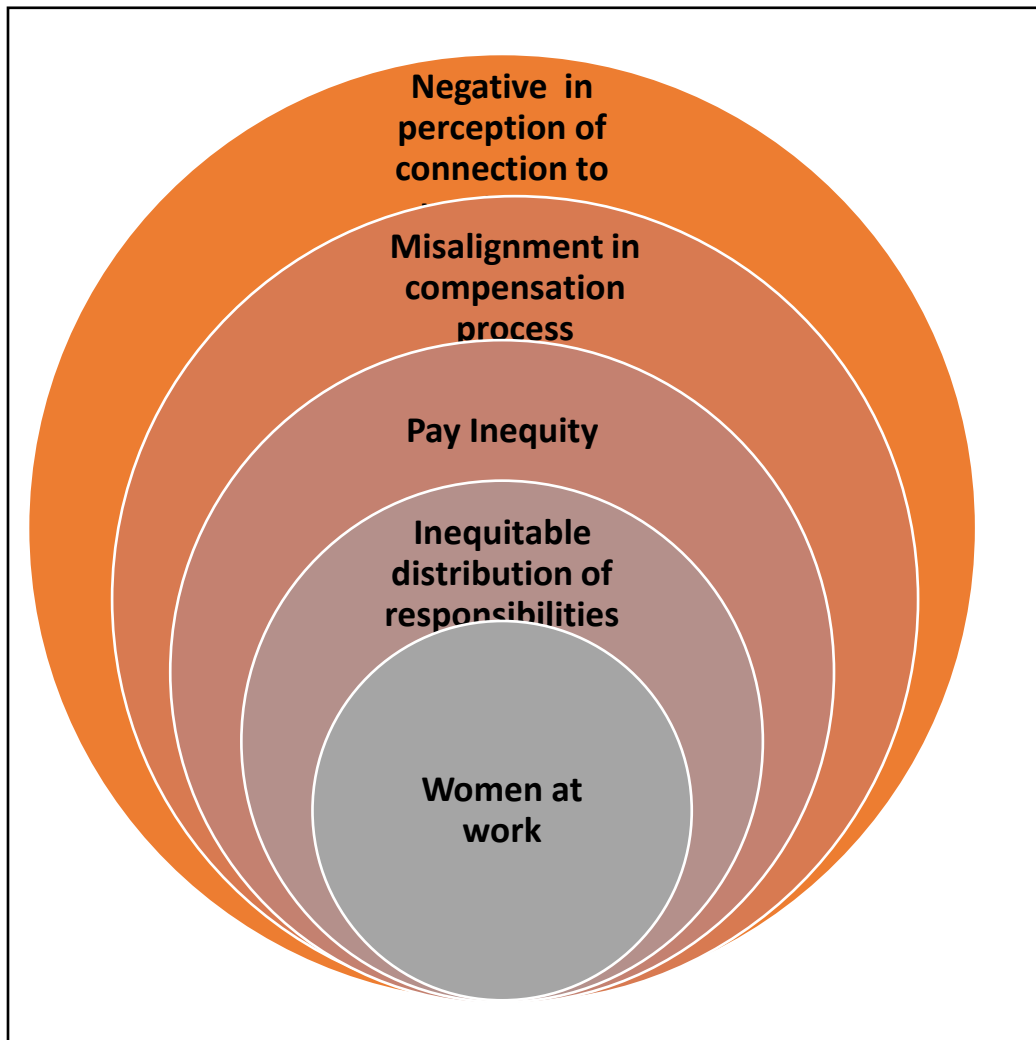
Figure 7. Framework of Disconnection based upon qualitative research in this study.

References

Boon, H. J., Cottrell, A., King, D., Stevenson, R. B., & Millar, J. (2012).

Bronfenbrenner's Bioecological Theory for modeling community resilience to

natural disasters. *Natural Hazards, 60*(2), 381-408.

Burkman, A., & Lester, D. (2013). Superintendent salary study: Is there gender equity

in Texas? *National Forum of Educational Administration and Supervision

Journal.*

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed-methods

approaches*. Los Angeles: SAGE Publications.

Grissom, J. A., & Mitani, H. (2016). Salary, Performance, and Superintendent

Turnover. *Educational Administration Quarterly, 52*(3), 351-391.

Kolb, D. M. (2009). Too bad for the women or does it have to be? Gender and

negotiation research over the past twenty-five years. *Negotiation Journal, 25*(4),

515-531. Retrieved from http://ezproxy.umsl.edu/login?url=https://search-

proquest-com.ezproxy.umsl.edu/docview/205188323?accountid=14595

Leibbrandt, A., & List, J. (2012). Do women avoid salary negotiations? Evidence from

a large scale natural field experiment. *Management Science, 61*(9), 2016-2024.

Mertz, N. T. (2006). The Promise of Title IX. *Urban Education,41*(6), 544-559.

doi:10.1177/0042085906292511

Rosenfeld, J., & Denice, P. (2015). The Power of Transparency: Evidence from a British

Workplace Survey. *American Sociological Review, 80*(5), 1045-1068. Retrieved

from http://www.jstor.org.ezproxy.umsl.edu/stable/24756355

Silva, E., & Galbraith, Q. (2018). Salary Negotiation Patterns between Women and Men

in Academic Libraries. *College & Research Libraries, 79*(3), 324.

doi:https://doi.org/10.5860/crl.79.3.324

Shore, T. H., & Strauss, J. (2012). Effects of pay and productivity comparisons in the

workplace on employee attitudes: An experimental investigation. *International*

Journal of Management, 29(2), 677-686. Retrieved from

http://ezproxy.umsl.edu/login?url=https://search-proquest-

com.ezproxy.umsl.edu/docview/1020691046?accountid=14595

Trahan, M., & Growe, R. (2012). Inequalities of Women: Understanding Marginalization

of Female Educators and the Quest For Change. *Focus on Colleges, Universities,*

d Schools. Retrieved from

http://www.nationalforum.com/Electronic%20Journal%20Volumes/Trahan,%20

Mitzi%20Inequalities%20of%20Women%20FOCUS%20V6%20N1%202012.pdf

Wade, M. E. (2001), Women and salary negotiation: The costs of self-advocacy.

Psychology of Women Quarterly, 25, 65-76. doi:10.1111/1471-6402.00008

Appendix A

Women in the Workplace

Q30 The purpose of this research is to study if inequitable practices towards women have an effect on their perception of commitment, productivity, and happiness in the workplace.   When taking this survey, please choose a job where you held a leadership position in the organization.

Q1 What is your gender identity? Select one.

○ Male (1)

○ Female (2)

○ Non-binary (3)

○ Prefer to self describe (4)

_____

○ Prefer not to answer (5)

Q2 What is your ethnicity? Select all that apply.

☐ American Indian or Alaska Native (1)

☐ Asian (2)

☐ Black/African (3)

☐ Caucasian (4)

☐ Hispanic/Latinx (5)

☐ Pacific Islander (6)

☐ Prefer not to answer (7)

Q3 What is your age?

○ 21-29 (1)

○ 30-39 (2)

○ 40-49 (3)

○ 50-59 (4)

○ 60 or older (5)

Q4 In your organization, what gender does the highest ranking or most senior leader identify as?

○ Male (1)

○ Female (2)

○ Non-binary (3)

○ Unsure (4)

Q5 Rate your satisfaction with your job on a scale of 1-5.

○ 1- Extremely dissatisfied (1)

○ 2-Dissatisfied (2)

○ 3-Neutral (3)

○ 4-Satisfied (4)

○ 5-Extremely Satisfied (5)

Q6 Have you ever been paid less money than a male counterpart?

○ Yes (1)

○ No (2)

○ Unsure (3)

Q7 How often are you asked to take on extra responsibilities?

○ Always (1)

○ Very Often (2)

○ Sometimes (3)

○ Rarely (4)

○ Never (5)

Q8 Are these extra responsibilities evenly distributed amongst colleagues?

○ Always (1)

○ Very Often (2)

○ Sometimes (3)

○ Rarely (4)

○ Never (5)

Q9 Using the list below, select the type of task you have been primarily asked to take on outside of your job description:

○ Strategy work (1)

○ Clerical work (Example: making copies) (2)

○ Logistical work: Organizing and scheduling meetings (3)

○ Drafting presentations or memos (4)

○ Leading meetings or groups (5)

○ Other (6) _____

Q10   How much more often are you asked to take on responsibilities than your male counterparts?

○ Never (1)

○ A few times a year (2)

○ Monthly (3)

○ Weekly (4)

○ Daily (5)

Q11 Have you ever been frustrated at the amount of extra work you have been asked or expected to do?

○ Yes (1)

○ No (2)

Q12 How often have you taken on extra responsibilities   at work without asking for additional compensation?

○ Never (1)

○ A few times a year (2)

○ Monthly (3)

○ Weekly (4)

○ Daily (5)

Q25 If you take on additional opportunities, rank your top three reasons from the list below.

_____ Work ethic (Raised with a strong work ethnic) (1)
_____ Gender identity (I see other women who are promoted have to work this hard) (2)
_____ Racial identity (I see other people of color who are promoted have to work this hard) (3)
_____ I love my job (4)
_____ I am passionate about the mission (5)
_____ I want my supervisor to respect me (6)
_____ I am fearful that I will face reprimand or repercussions from my supervisor (7)

Q13 Have you ever asked for a raise?

○ Yes (1)

○ No (2)

Q14 What gender did your manager/supervisor identify as?

○ Male (1)

○ Female (2)

○ Non-binary (3)

○ Unsure (4)

Q17 **Please rate your experience while asking for a raise:**   Anxiety in preparation of the ask

○ Very anxious (1)

○ Moderately anxious (2)

○ Neutral (3)

○ Little Anxiety   (4)

○ No Anxiety (5)

Display This Question:

If Have you ever asked for a raise? = Yes

Q18
Please rate your experience while asking for a raise:

Response from manager or supervisor

○ Dismissive (1)

○ Slightly dismissive (2)

○ Neutral (3)

○ Open (4)

○ Embracing (5)

Q19 Rate the level of risk associated with asking for a raise relative to its potential impact on your working relationship with your boss

○ High risk (1)

○ Moderate Risk (2)

○ Neutral (3)

○ Little Risk (4)

○ No Risk (5)

Q20 Rate the level of risk associated with asking for a raise relative to your job security

○ High risk (1)

○ Moderate Risk (2)

○ Neutral (3)

○ Little Risk (4)

○ No Risk (5)

Q33 What was the outcome of your request for a raise?

○ It was approved at the amount I requested (1)

○ It was denied. (2)

○ I received a raise but less than I requested. (3)

○ Other (4) _____

Q21   Check which of the following reasons inhibited you from asking for a raise (Check as many that apply)

☐   I get regular raises, predetermined contractual scale (1)

☐   The role defines the pay scale (2)

☐   Raises have been frozen (3)

☐   Jeopardizes working relationship (4)

☐   Jeopardizes job security (5)

☐   I do not see the point, because I wouldn't get it (6)

☐   I've witnessed others who share my gender identity be refused (7)

☐   I've seen others who share my racial identify be refused (8)

☐   Other (9) _____

Q32   When you first began your job, how would you describe your connection to the mission of the organization?

○ Not connected at all (1)

○ Somewhat disconnected (2)

○ Neutral (3)

○ Somewhat connected to the mission (4)

○ Very connected to the mission (5)

Q23 Was there a time when your level of connection to your organization decreased?

○ Yes (1)

○ No (2)

Display This Question:

If Was there a time when your level of connection to your organization decreased? = Yes

Q24 What were the reasons you attributed to this decrease in connection? Please select your top three reasons.

☐   Work environment (1)

☐   Individual treatment By administrators (2)

☐   Individual treatment By co-workers   (3)

☐   Compensation being misaligned with job expectations   (4)

☐   Promises made by supervisors that were not honored (5)

☐   Request for a raise was denied (8)

☐   Other (9) _____

Display This Question:

If   Was there a time when your level of connection to your organization decreased?   = Yes

Q34 When your connection decreased, how did it impact your level of productivity?

○ I began doing only what was required within my job description. (1)

○ I did less than what was stated in my job description. (2)

○ My productivity was not impacted. (3)

○ Other (4) _____

Q35   Currently, how connected to the mission of the organization are you? If no longer in the role, how connected to the mission of the organization were you after 1 year of employment?

○ Not connected at all (1)

○ Somewhat disconnected (2)

○ Neutral (3)

○ Somewhat connected to the mission (4)

○ Very connected to the mission (5)

Q26 Have you ever had a senior position for which you were under qualified?

○ Yes (1)

○ No (2)

Display This Question:

If Have you ever had a senior position for which you were under qualified? = Yes

Q27 Were you given adequate mentoring?
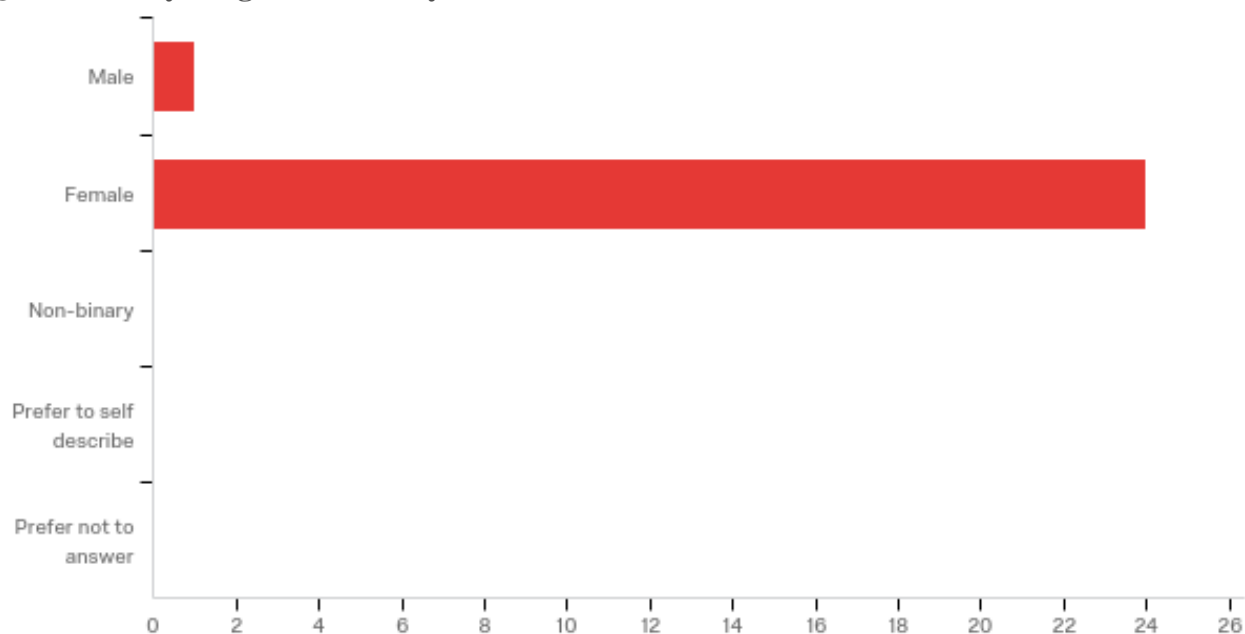
○ Yes (1)

○ No (2)

Q28 Is there anything else you would like to say about your experience with equity in leadership roles?

_____

Q31 If you are interested in participating in an interview, please include your name and number below.

_____

Appendix B

Women in the Workplace Survey Results

Q1 - What is your gender identity? Select one.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your gender identity? Select one. - Selected Choice	1.00	2.00	1.96	0.20	0.04	25

#	Answer	%	Count
1	Male	4.00%	1
2	Female	96.00%	24
3	Non-binary	0.00%	0
4	Prefer to self describe	0.00%	0
5	Prefer not to answer	0.00%	0
	Total	100%	25

Q1_4_TEXT - Prefer to self describe
Prefer to self describe - Text
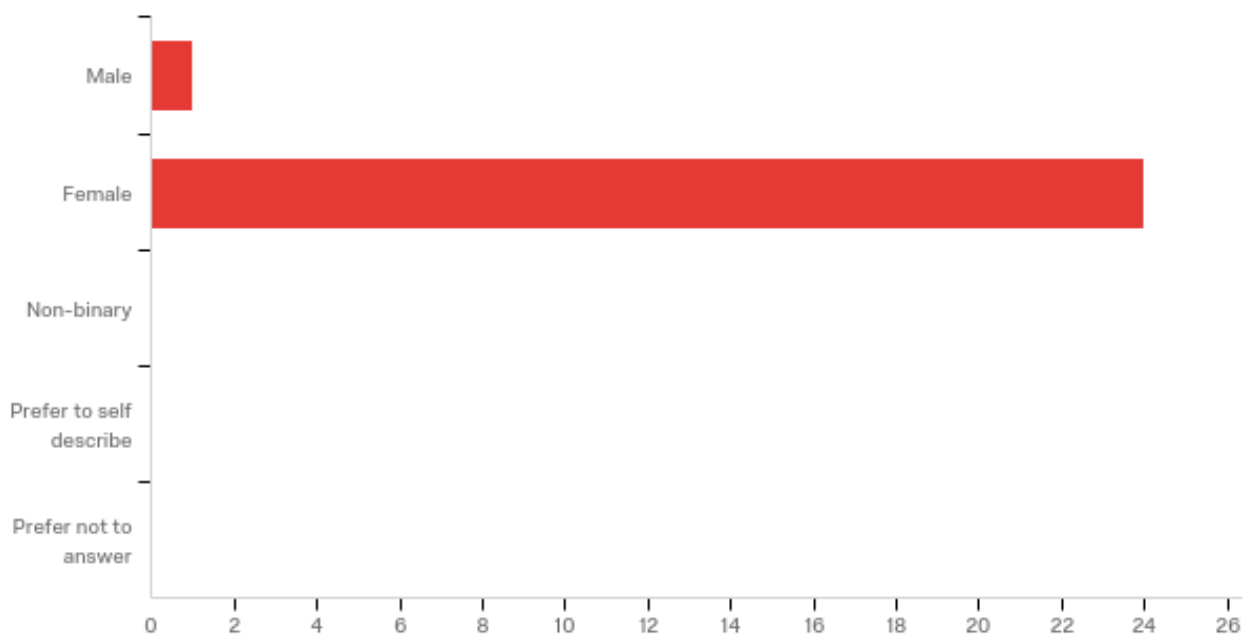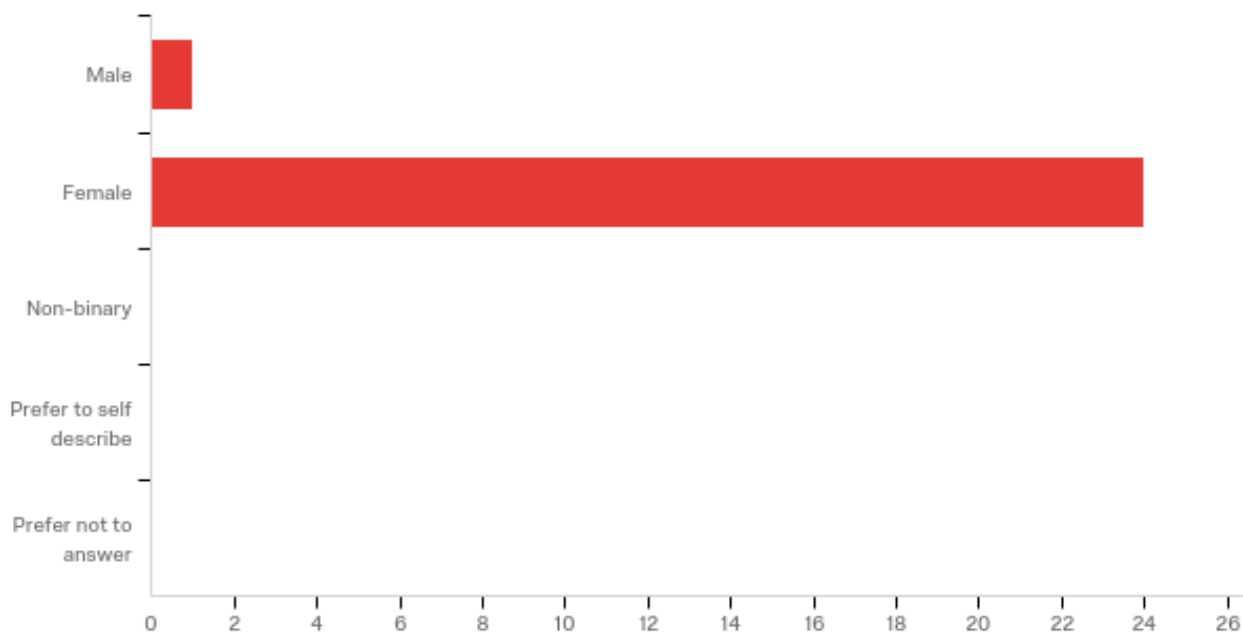
Q2 - What is your ethnicity? Select all that apply.
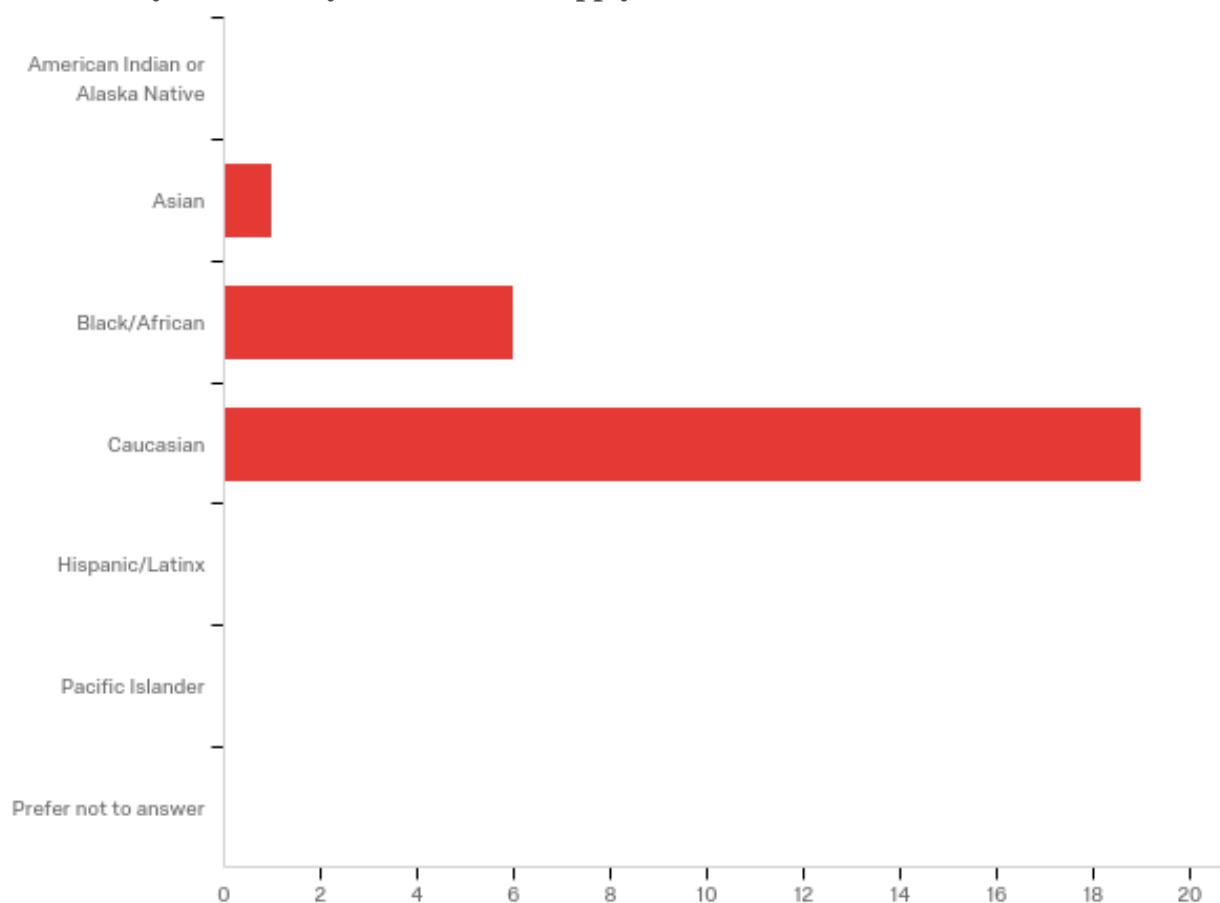
#	Answer	%	Count
1	American Indian or Alaska Native	0.00%	0
2	Asian	3.85%	1
3	Black/African	23.08%	6
4	Caucasian	73.08%	19
5	Hispanic/Latinx	0.00%	0
6	Pacific Islander	0.00%	0
7	Prefer not to answer	0.00%	0
	Total	100%	26

Q3 - What is your age?
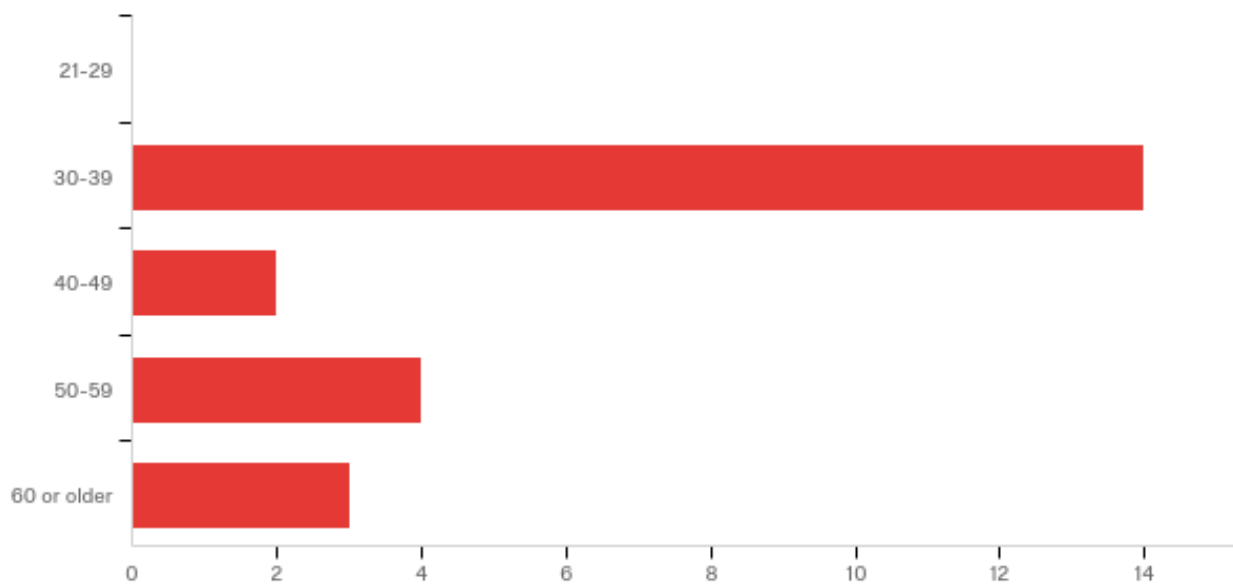
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your age?	2.00	5.00	2.83	1.13	1.27	23

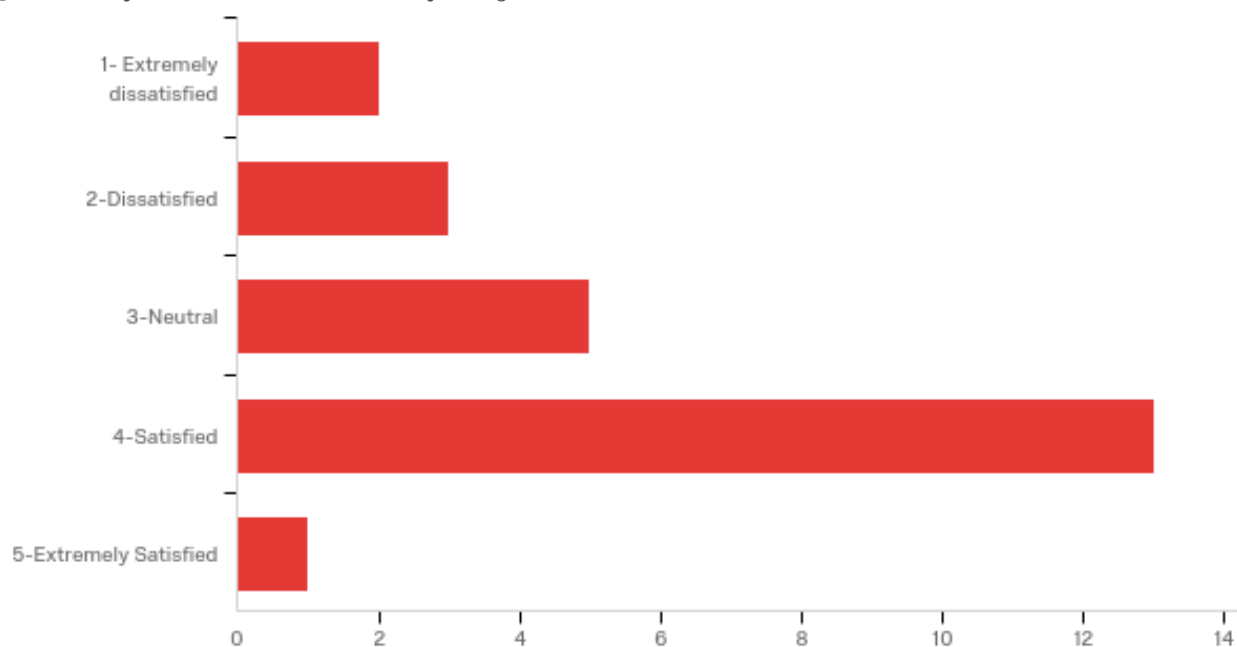| #	Answer	%	Count
1	21-29	0.00%	0
2	30-39	60.87%	14
3	40-49	8.70%	2
4	50-59	17.39%	4
5	60 or older	13.04%	3
	Total	100%	23

Q4 - In your organization, what gender does the highest ranking or most senior leader identify as?
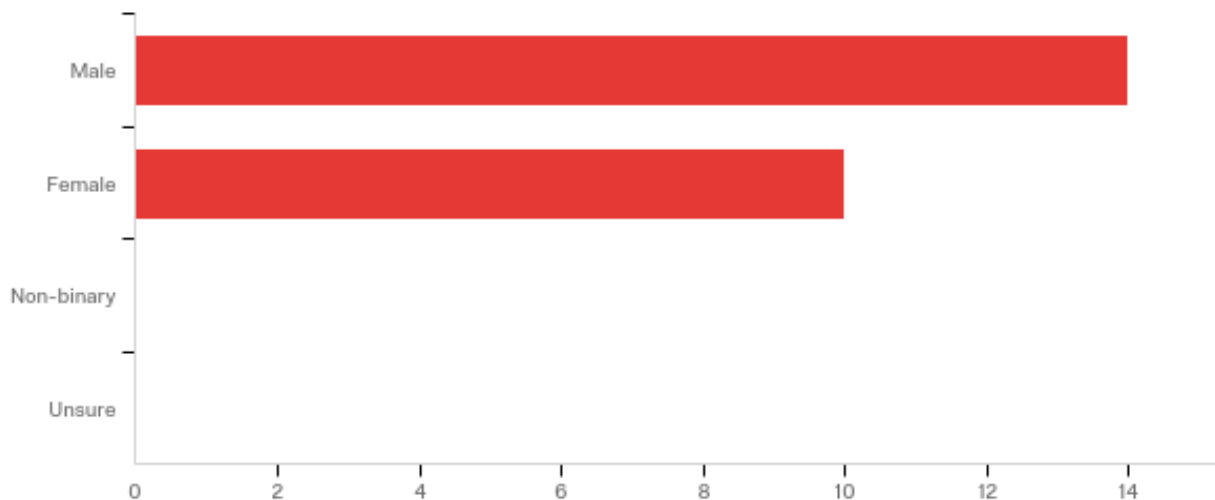
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	In your organization, what gender does the highest ranking or most senior leader identify as?	1.00	2.00	1.42	0.49	0.24	24

#	Answer	%	Count
1	Male	58.33%	14
2	Female	41.67%	10
3	Non-binary	0.00%	0
4	Unsure	0.00%	0
	Total	100%	24

Q5 - Rate your satisfaction with your job on a scale of 1-5.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Rate your satisfaction with your job on a scale of 1-5.	1.00	5.00	3.33	1.03	1.06	24

#	Answer	%	Count
1	1- Extremely dissatisfied	8.33%	2
2	2-Dissatisfied	12.50%	3
3	3-Neutral	20.83%	5
4	4-Satisfied	54.17%	13
5	5-Extremely Satisfied	4.17%	1
	Total	100%	24

Q6 - Have you ever been paid less money than a male counterpart?
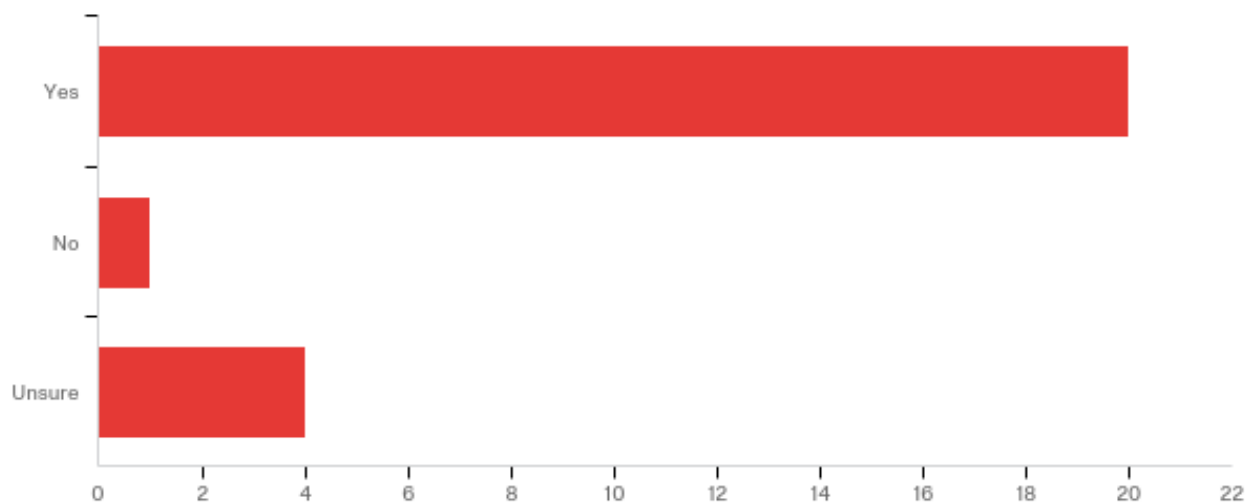
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Have you ever been paid less money than a male counterpart?	1.00	3.00	1.36	0.74	0.55	25

#	Answer	%	Count
1	Yes	80.00%	20
2	No	4.00%	1
3	Unsure	16.00%	4
	Total	100%	25

Q7 - How often are you asked to take on extra responsibilities?
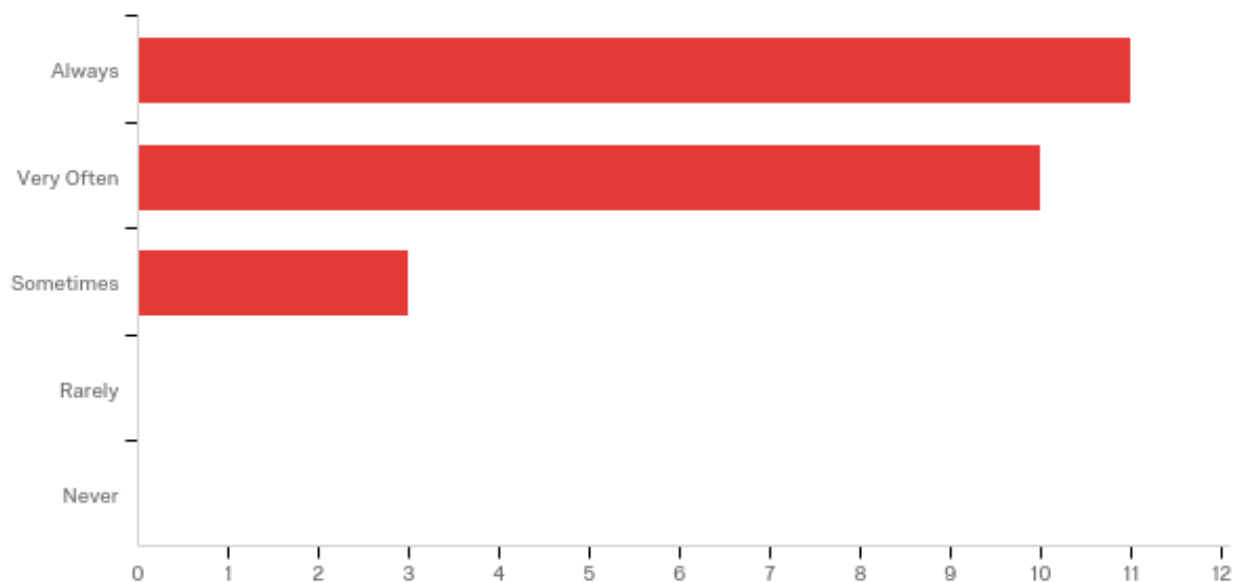
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often are you asked to take on extra responsibilities?	1.00	3.00	1.67	0.69	0.47	24

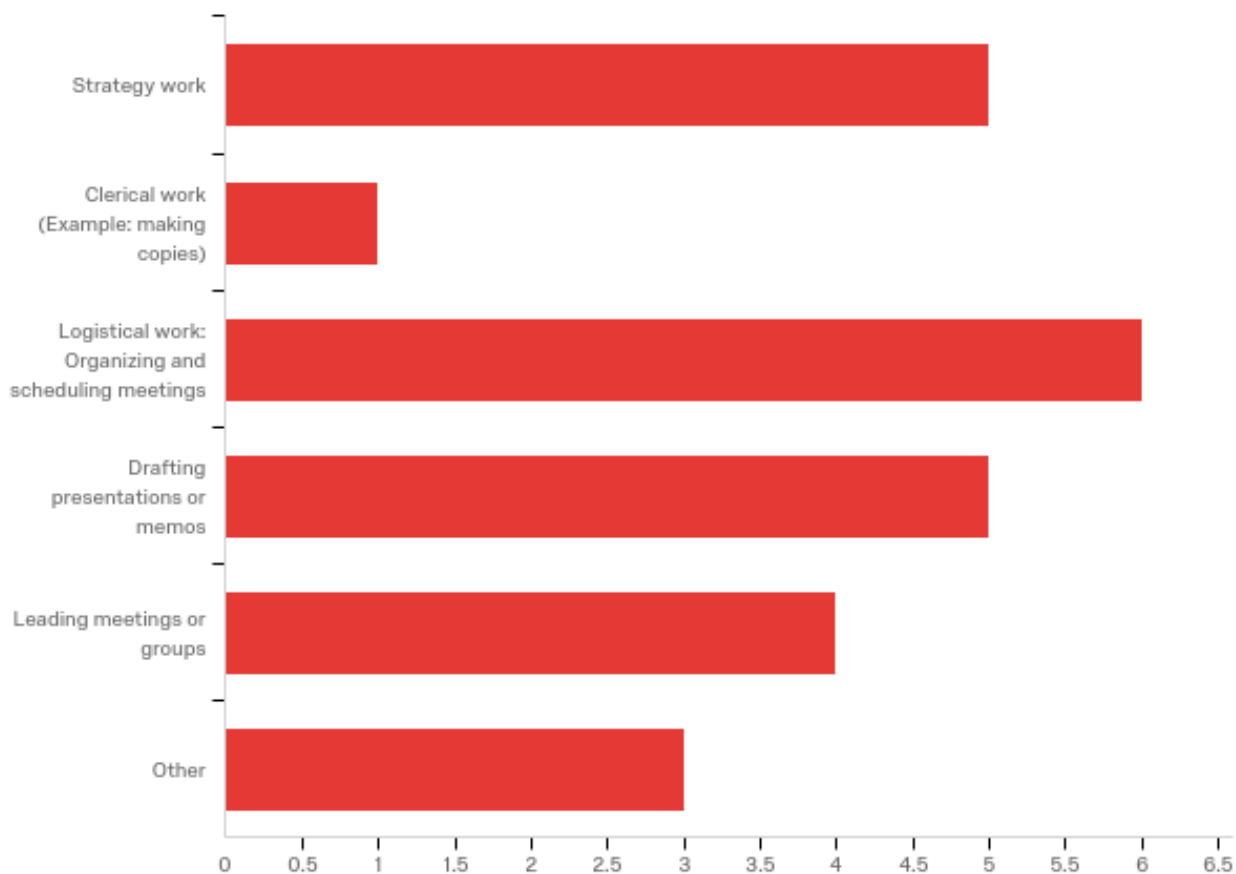| #	Answer	%	Count
1	Always	45.83%	11
2	Very Often	41.67%	10
3	Sometimes	12.50%	3
4	Rarely	0.00%	0
5	Never	0.00%	0
	Total	100%	24

Q8 - Are these extra responsibilities evenly distributed amongst colleagues?
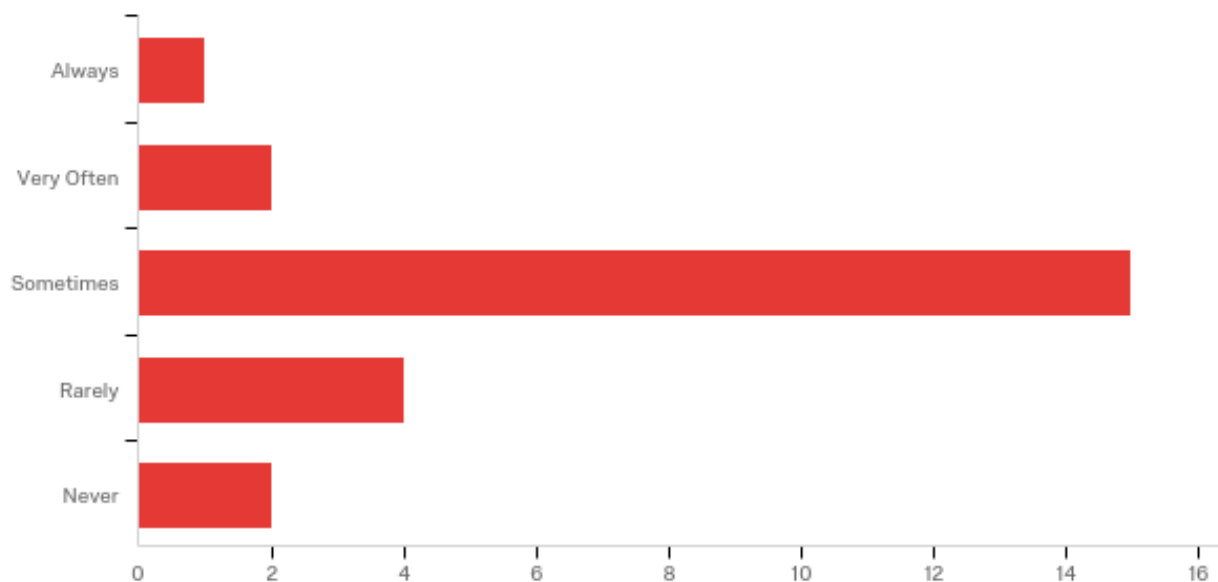
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Are these extra responsibilities evenly distributed amongst colleagues?	1.00	5.00	3.17	0.85	0.72	24

#	Answer	%	Count
1	Always	4.17%	1
2	Very Often	8.33%	2
3	Sometimes	62.50%	15
4	Rarely	16.67%	4
5	Never	8.33%	2
	Total	100%	24

Q9 - Using the list below, select the type of task you have been primarily asked to take on outside of your job description:

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Using the list below, select the type of task you have been primarily asked to take on outside of your job description: - Selected Choice	1.00	6.00	3.46	1.63	2.66	24

#	Answer	%	Count
1	Strategy work	20.83%	5

2	Clerical work (Example: making copies)	4.17%	1
3	Logistical work: Organizing and scheduling meetings	25.00%	6
4	Drafting presentations or memos	20.83%	5
5	Leading meetings or groups	16.67%	4
6	Other	12.50%	3
	Total	100%	24

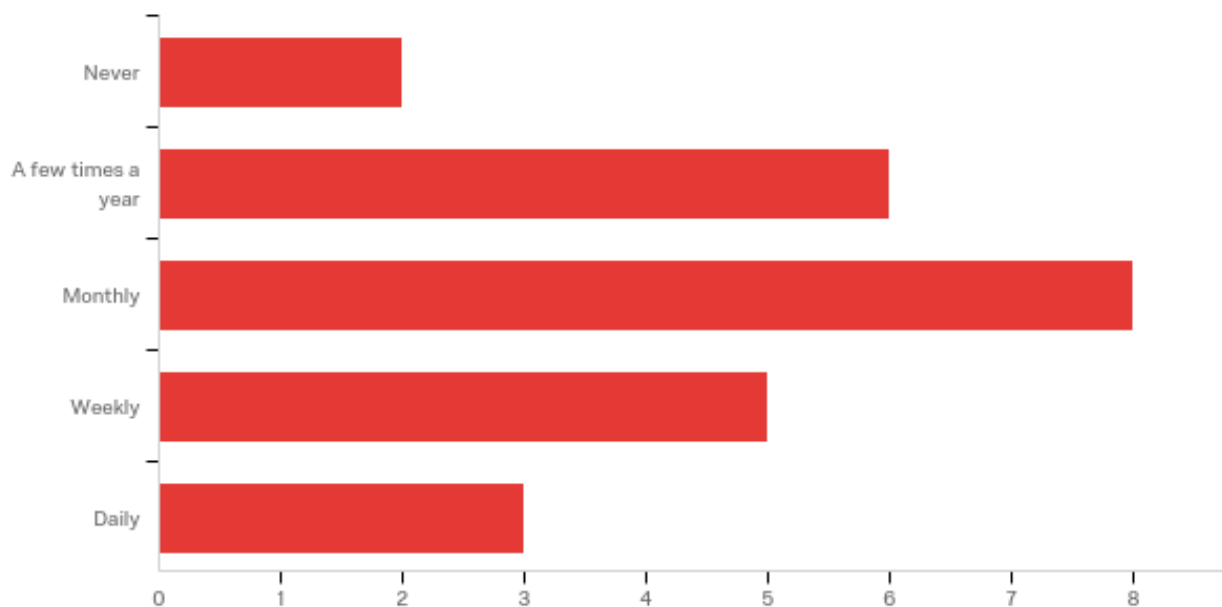Q9_6_TEXT - Other

| Other – Text |
|---|
| All of the above. |
| Directives on how to do my job |
| All of these above |

Q10 - How much more often are you asked to take on responsibilities than your male counterparts?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How much more often are you asked to take on responsibilities than your male counterparts?	1.00	5.00	3.04	1.14	1.29	24

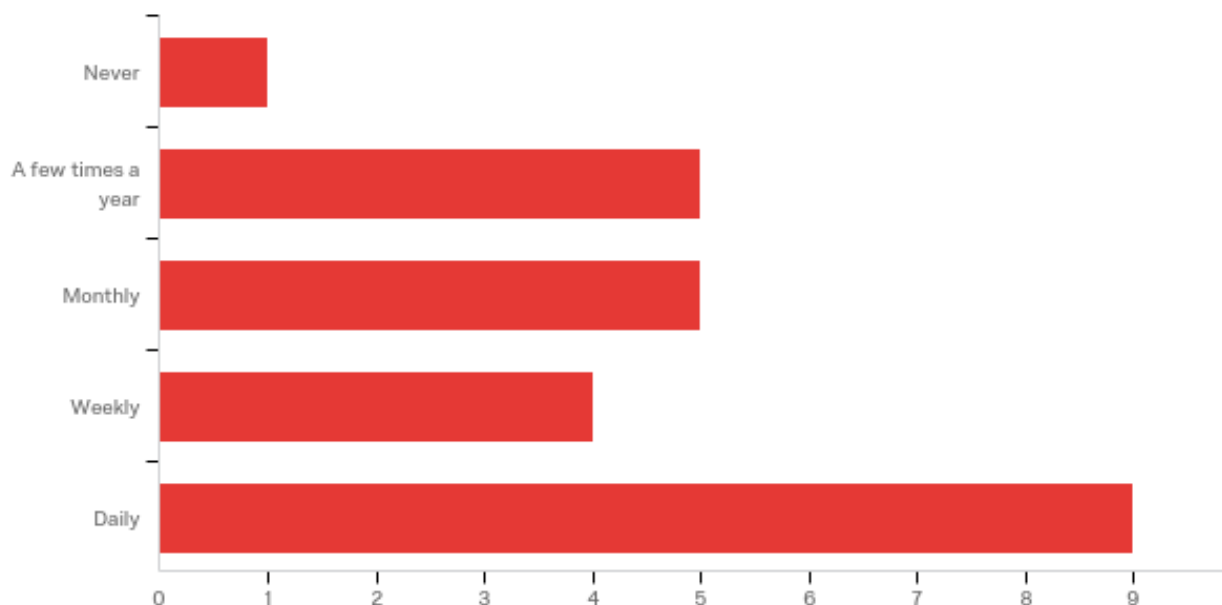| #	Answer	%	Count
1	Never	8.33%	2
2	A few times a year	25.00%	6
3	Monthly	33.33%	8
4	Weekly	20.83%	5
5	Daily	12.50%	3
	Total	100%	24

Q11 - Have you ever been frustrated at the amount of extra work you have been asked or expected to do?
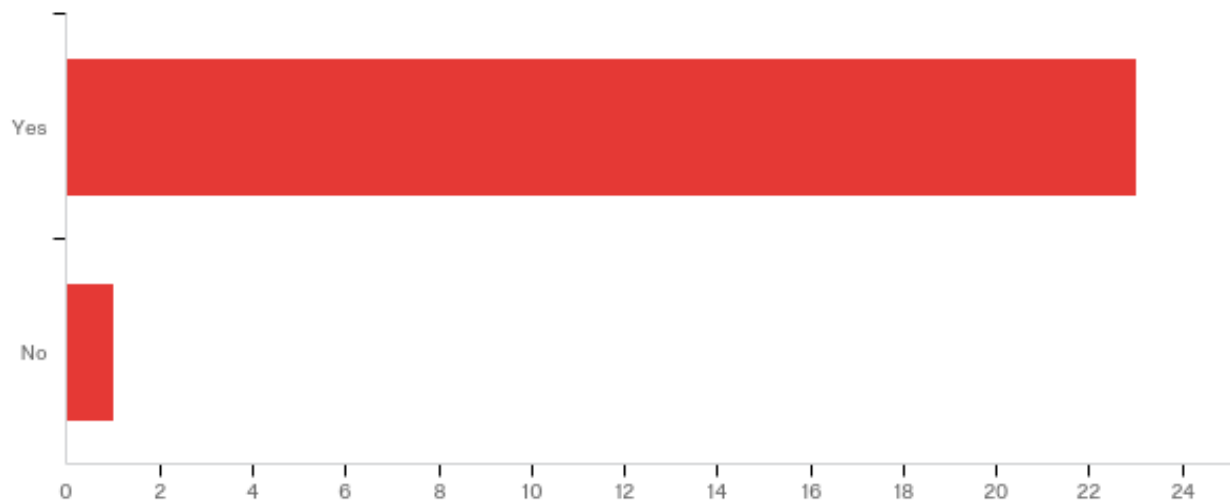
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Have you ever been frustrated at the amount of extra work you have been asked or expected to do?	1.00	2.00	1.04	0.20	0.04	24

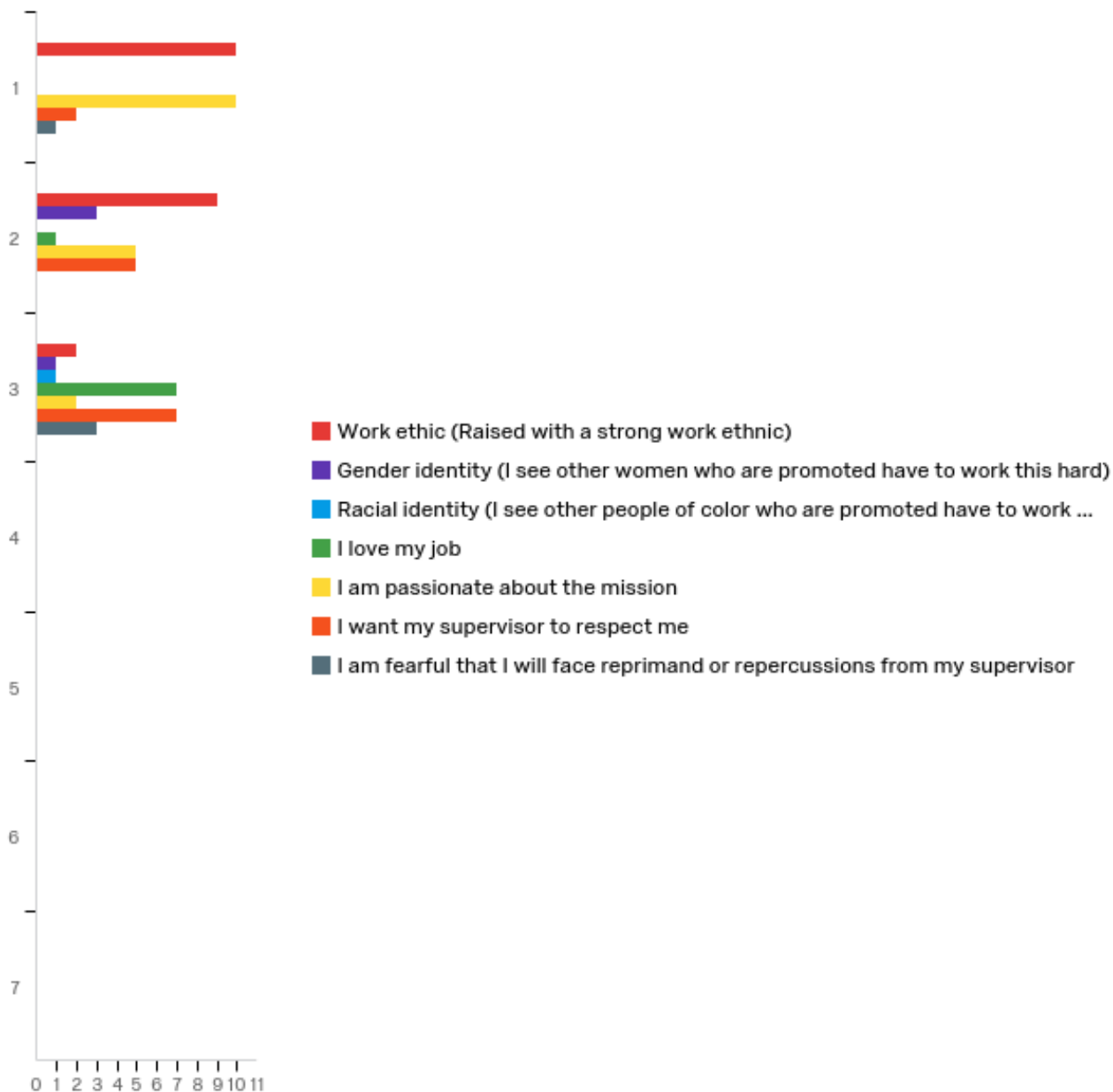| #	Answer	%	Count
1	Yes	95.83%	23
2	No	4.17%	1
	Total	100%	24

Q12 - How often have you taken on extra responsibilities   at work without asking for additional compensation?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often have you taken on extra responsibilities at work without asking for additional compensation?	1.00	5.00	3.63	1.28	1.65	24

#	Answer	%	Count
1	Never	4.17%	1
2	A few times a year	20.83%	5
3	Monthly	20.83%	5
4	Weekly	16.67%	4
5	Daily	37.50%	9
	Total	100%	24

**Q25 - If you take on additional opportunities, rank your top three reasons from the list below.**

■ Work ethic (Raised with a strong work ethnic)
■ Gender identity (I see other women who are promoted have to work this hard)
■ Racial identity (I see other people of color who are promoted have to work ...
■ I love my job
■ I am passionate about the mission
■ I want my supervisor to respect me
■ I am fearful that I will face reprimand or repercussions from my supervisor

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Work ethic (Raised with a strong work ethnic)	1.00	3.00	1.62	0.65	0.43	21
2	Gender identity (I see other women who are promoted	2.00	3.00	2.25	0.43	0.19	4

#	Question						
	have to work this hard)						
3	Racial identity (I see other people of color who are promoted have to work this hard)	3.00	3.00	3.00	0.00	0.00	1
4	I love my job	2.00	3.00	2.88	0.33	0.11	8
5	I am passionate about the mission	1.00	3.00	1.53	0.70	0.48	17
6	I want my supervisor to respect me	1.00	3.00	2.36	0.72	0.52	14
7	I am fearful that I will face reprimand or repercussions from my supervisor	1.00	3.00	2.50	0.87	0.75	4

#	Question	1		2		3		4		5		6		7		Total
1	Work ethic (Raised with a strong work ethnic)	47.62%	10	42.86%	9	9.52%	2	0.00%	0	0.00%	0	0.00%	0	0.00%	0	21
2	Gender identity (I see other women who are promoted have to work this hard)	0.00%	0	75.00%	3	25.00%	1	0.00%	0	0.00%	0	0.00%	0	0.00%	0	4
3	Racial identity (I see other	0.00%	0	0.00%	0	100.00%	1	0.00%	0	0.00%	0	0.00%	0	0.00%	0	1

|	people of color who are promoted have to work this hard)															
4	I love my job	0.00%	0	12.50%	1	87.50%	7	0.00%	0	0.00%	0	0.00%	0	0.00%	0	8
5	I am passionate about the mission	58.82%	10	29.41%	5	11.76%	2	0.00%	0	0.00%	0	0.00%	0	0.00%	0	17
6	I want my supervisor to respect me	14.29%	2	35.71%	5	50.00%	7	0.00%	0	0.00%	0	0.00%	0	0.00%	0	14
7	I am fearful that I will face reprimand or repercussions from my supervisor	25.00%	1	0.00%	0	75.00%	3	0.00%	0	0.00%	0	0.00%	0	0.00%	0	4

Q13 - Have you ever asked for a raise?
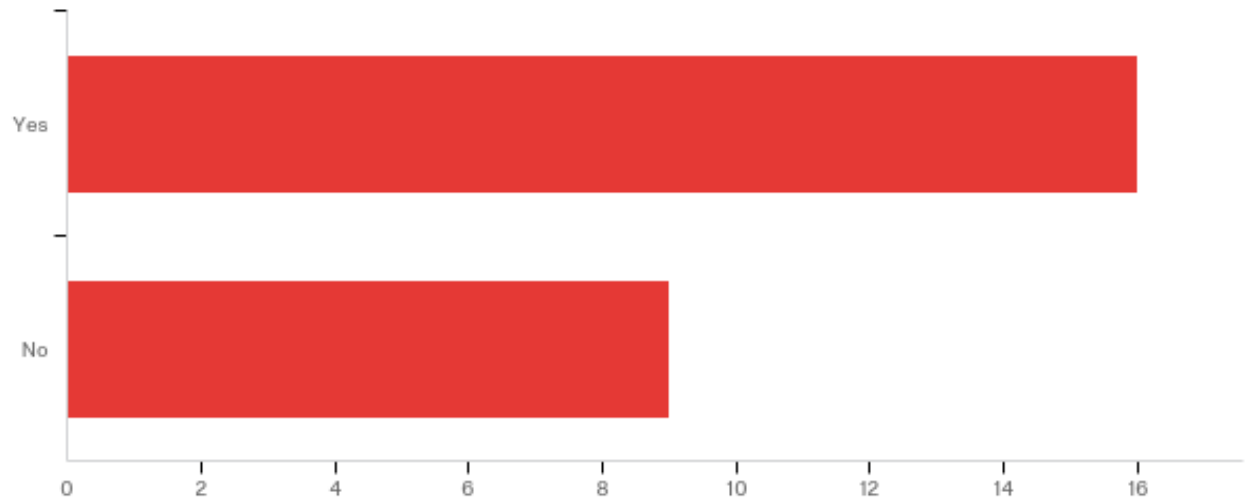
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Have you ever asked for a raise?	1.00	2.00	1.36	0.48	0.23	25

#	Answer	%	Count
1	Yes	64.00%	16
2	No	36.00%	9
	Total	100%	25

Q14 - What gender did your manager/supervisor identify as?
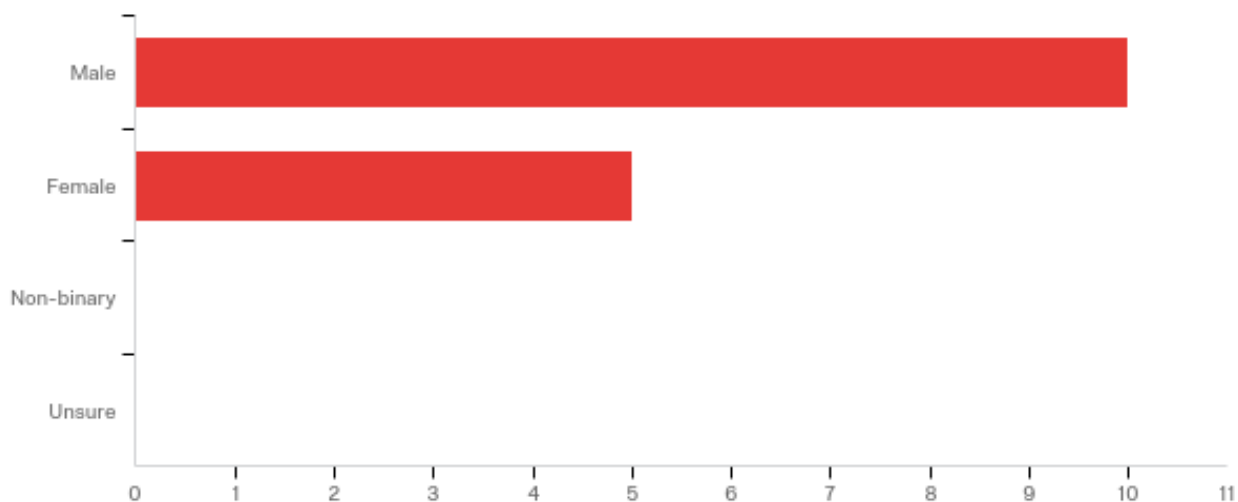
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What gender did your manager/supervisor identify as?	1.00	2.00	1.33	0.47	0.22	15

#	Answer	%	Count
1	Male	66.67%	10
2	Female	33.33%	5
3	Non-binary	0.00%	0
4	Unsure	0.00%	0
	Total	100%	15

Q17 - Please rate your experience while asking for a raise: Anxiety in preparation of the ask
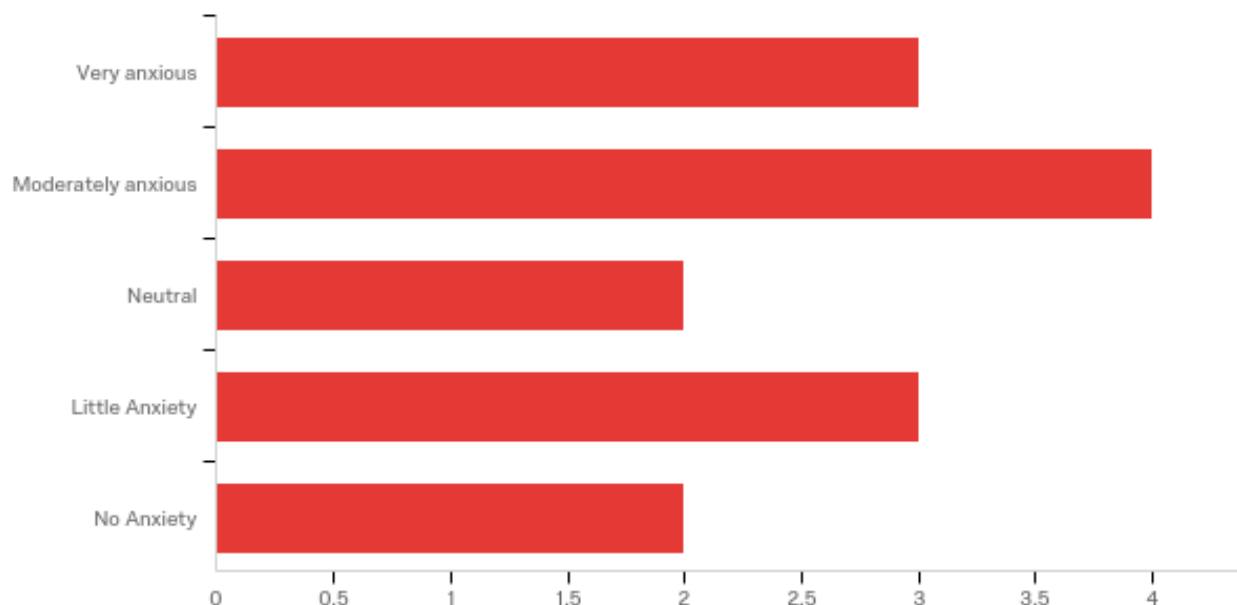
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Please rate your experience while asking for a raise: Anxiety in preparation of the ask	1.00	5.00	2.79	1.37	1.88	14

#	Answer	%	Count
1	Very anxious	21.43%	3
2	Moderately anxious	28.57%	4
3	Neutral	14.29%	2
4	Little Anxiety	21.43%	3
5	No Anxiety	14.29%	2
	Total	100%	14

Q18 - Please rate your experience while asking for a raise: Response from manager or supervisor
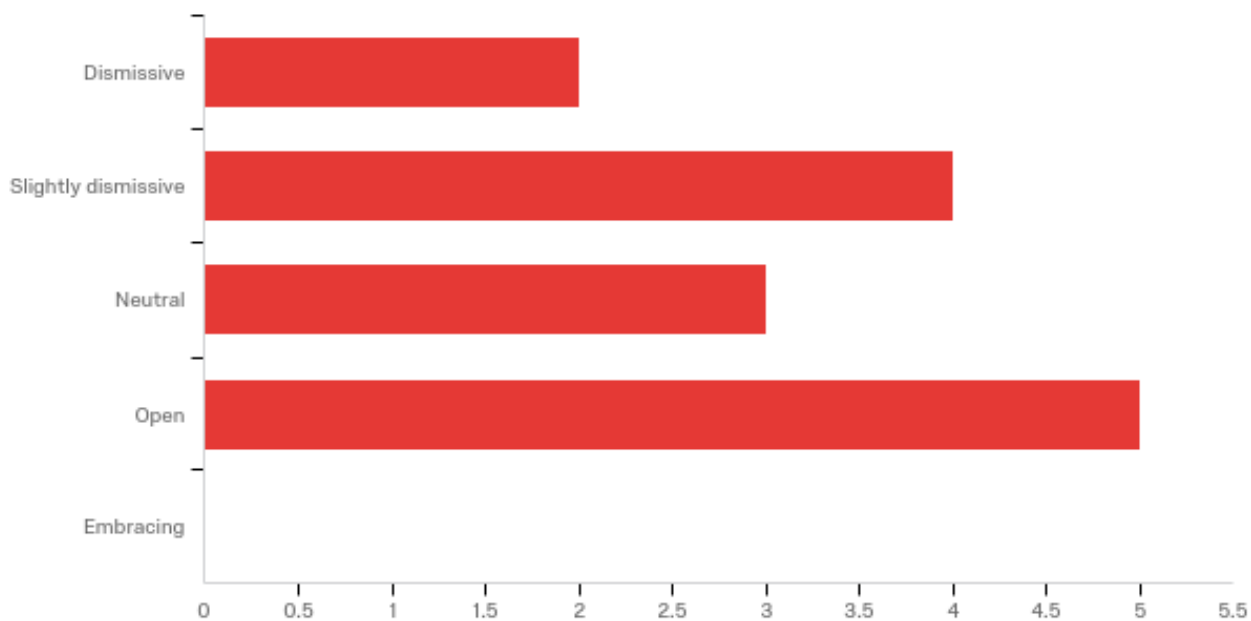
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Please rate your experience while asking for a raise: Response from manager or supervisor	1.00	4.00	2.79	1.08	1.17	14

#	Answer	%	Count
1	Dismissive	14.29%	2
2	Slightly dismissive	28.57%	4
3	Neutral	21.43%	3
4	Open	35.71%	5
5	Embracing	0.00%	0
	Total	100%	14

Q19 - Rate the level of risk associated with asking for a raise relative to its potential impact on your working relationship with your boss
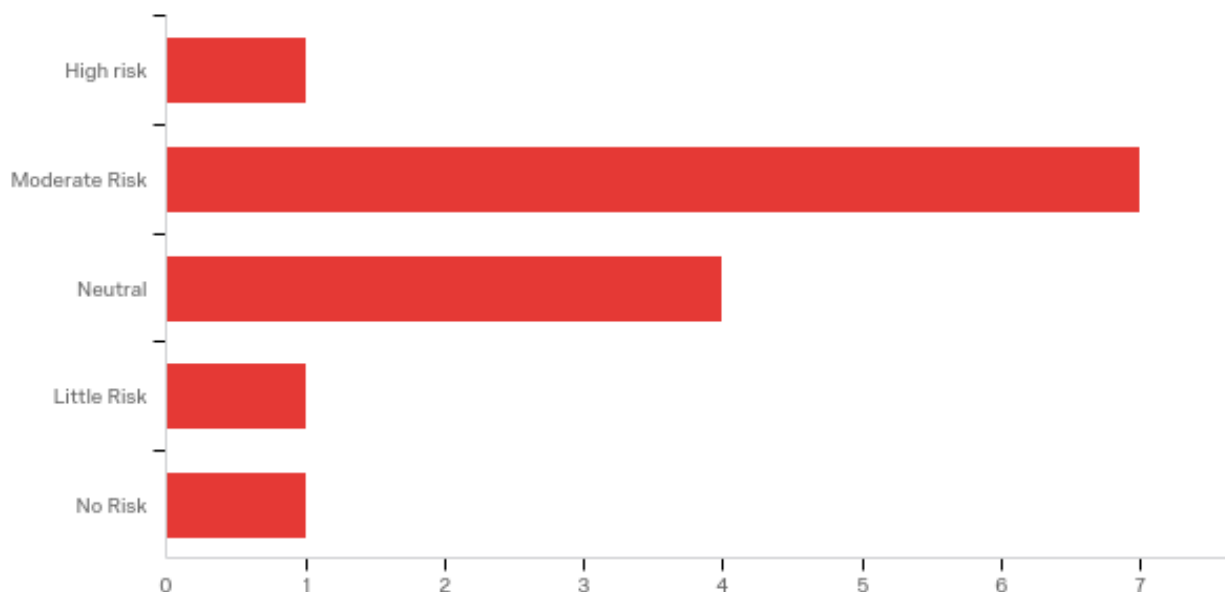
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Rate the level of risk associated with asking for a raise relative to its potential impact on your working relationship with your boss	1.00	5.00	2.57	0.98	0.96	14

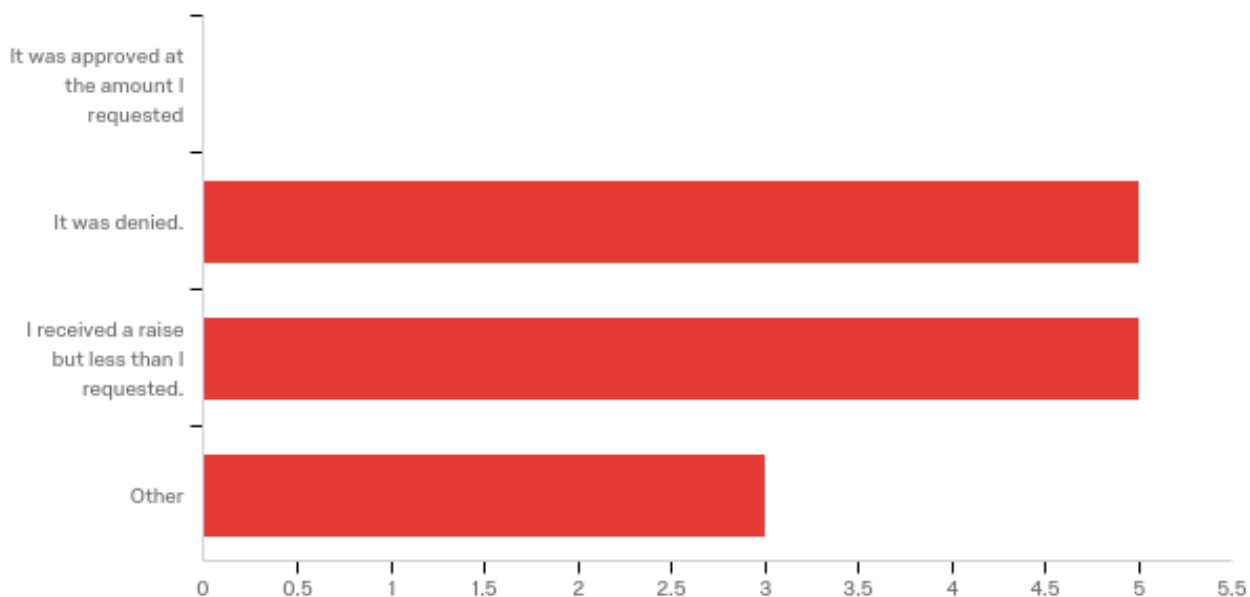| #	Answer	%	Count
1	High risk	7.14%	1
2	Moderate Risk	50.00%	7
3	Neutral	28.57%	4
4	Little Risk	7.14%	1
5	No Risk	7.14%	1
	Total	100%	14

Q20 - Rate the level of risk associated with asking for a raise relative to your job security
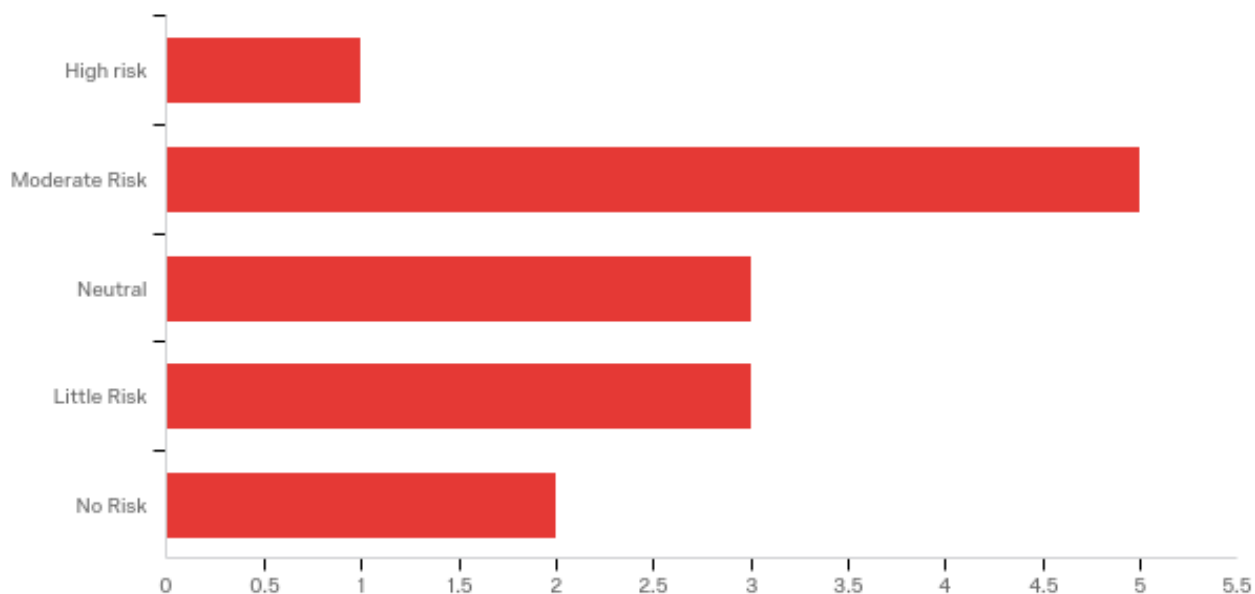
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Rate the level of risk associated with asking for a raise relative to your job security	1.00	5.00	3.00	1.20	1.43	14

#	Answer	%	Count
1	High risk	7.14%	1
2	Moderate Risk	35.71%	5
3	Neutral	21.43%	3
4	Little Risk	21.43%	3
5	No Risk	14.29%	2
	Total	100%	14

Q33 - What was the outcome of your request for a raise?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What was the outcome of your request for a raise? - Selected Choice	2.00	4.00	2.85	0.77	0.59	13

#	Answer	%	Count
1	It was approved at the amount I requested	0.00%	0
2	It was denied.	38.46%	5
3	I received a raise but less than I requested.	38.46%	5
4	Other	23.08%	3
	Total	100%	13

Q33_4_TEXT - Other

Other – Text

It took several years and it was only secured by men.

Not a priority

Q21 - Check which of the following reasons inhibited you from asking for a raise (Check as many that apply)
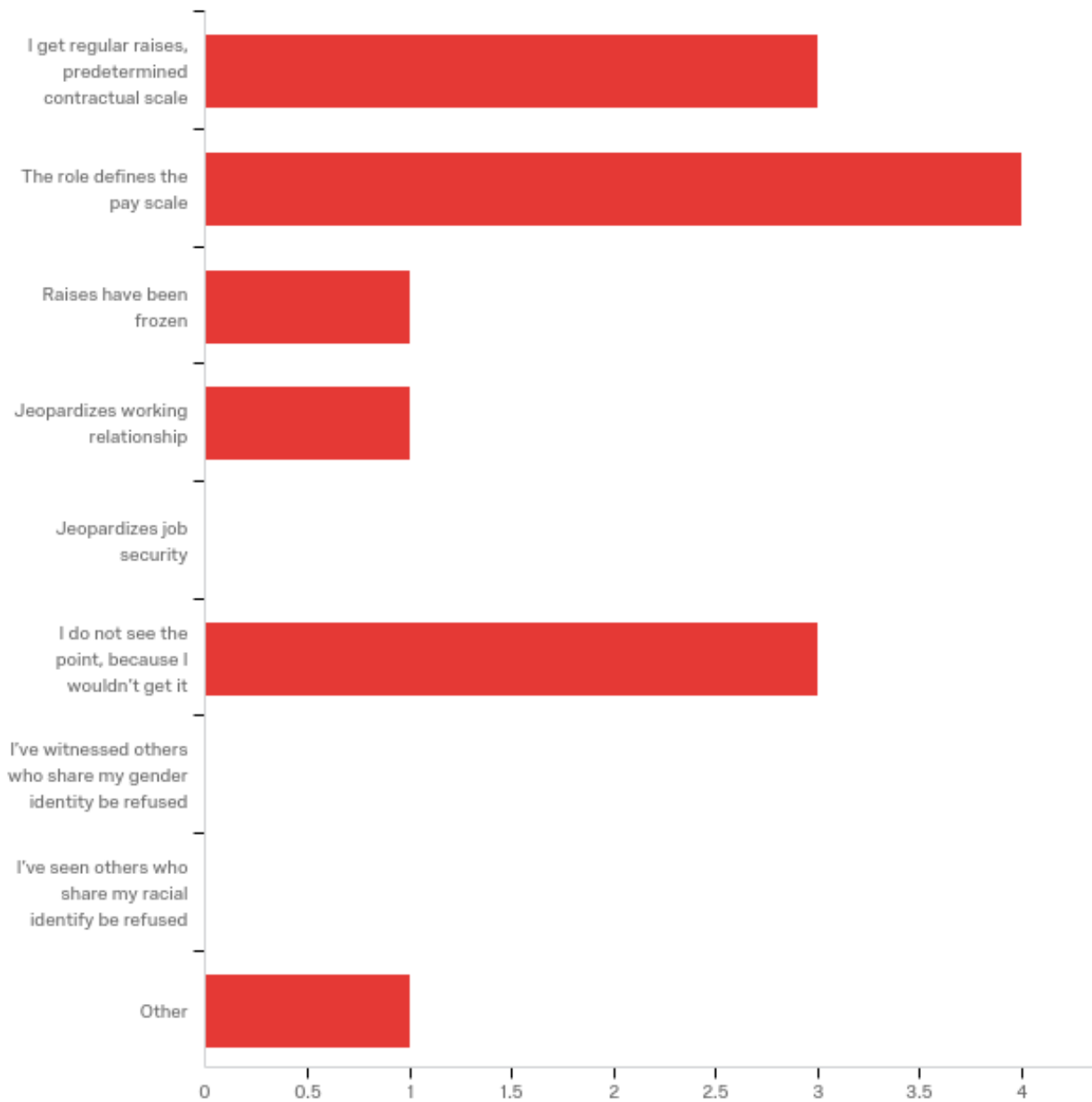
#	Answer	%	Count
1	I get regular raises, predetermined contractual scale	23.08%	3
2	The role defines the pay scale	30.77%	4

3	Raises have been frozen	7.69%	1
4	Jeopardizes working relationship	7.69%	1
5	Jeopardizes job security	0.00%	0
6	I do not see the point, because I wouldn't get it	23.08%	3
7	I've witnessed others who share my gender identity be refused	0.00%	0
8	I've seen others who share my racial identify be refused	0.00%	0
9	Other	7.69%	1
	Total	100%	13

Q21_9_TEXT - Other

Other – Text
The only time I asked for a raise in an organization, I was instead non-renewed.

Q23 - Was there a time when your level of connection to your organization decreased?
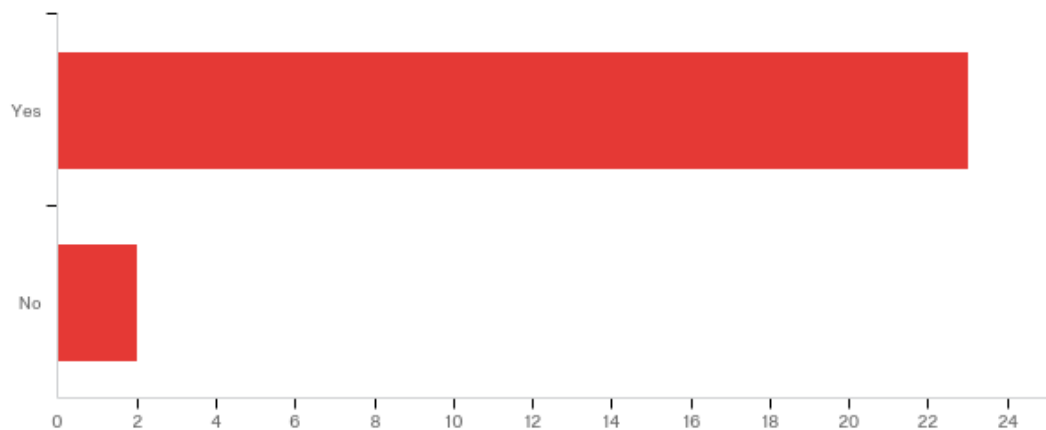
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Was there a time when your level of connection to your organization decreased?	1.00	2.00	1.08	0.27	0.07	25

#	Answer	%	Count
1	Yes	92.00%	23
2	No	8.00%	2
	Total	100%	25

Q24 - What were the reasons you attributed to this decrease in connection? Please select your top three reasons.
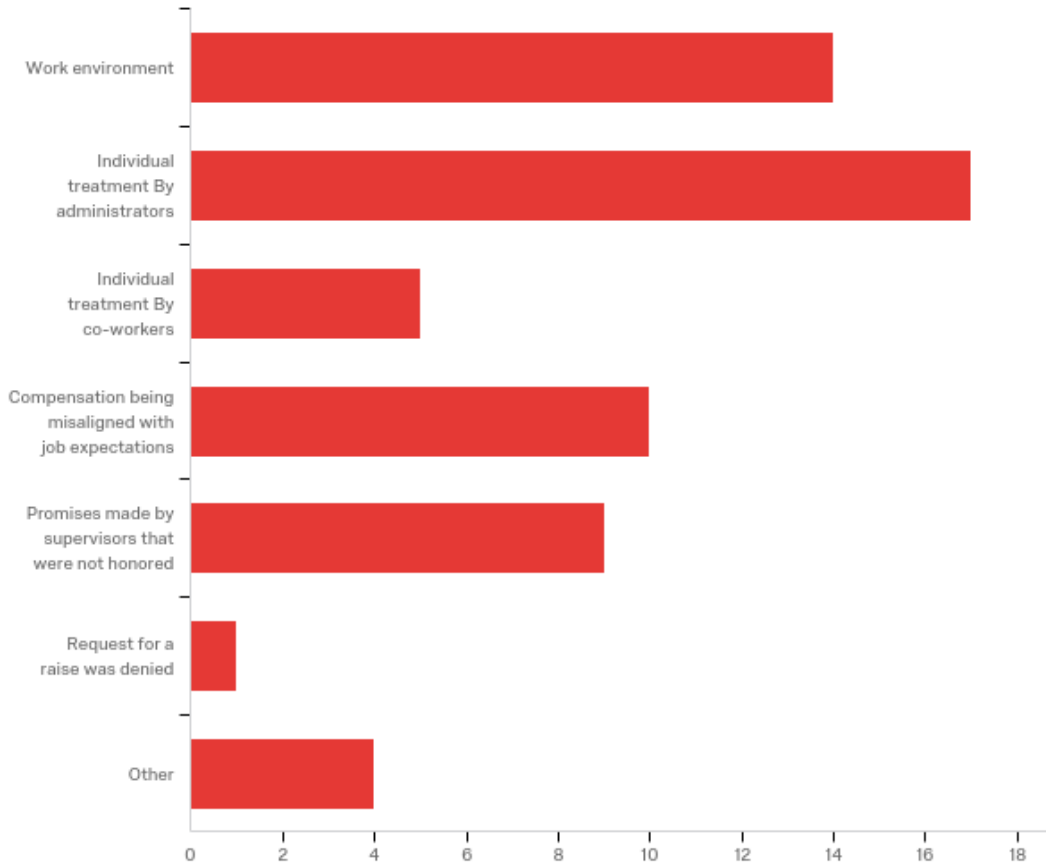
#	Answer	%	Count
1	Work environment	23.33%	14
2	Individual treatment By administrators	28.33%	17
3	Individual treatment By co-workers	8.33%	5
4	Compensation being misaligned with job expectations	16.67%	10
5	Promises made by supervisors that were not honored	15.00%	9
8	Request for a raise was denied	1.67%	1
9	Other	6.67%	4
	Total	100%	60

Q24_9_TEXT - Other

Other – Text
state take over
Misalignment of vision/mission to work
Racial tensions at work
I left a job and came back at a lower level

Q34 - When your connection decreased, how did it impact your level of productivity?
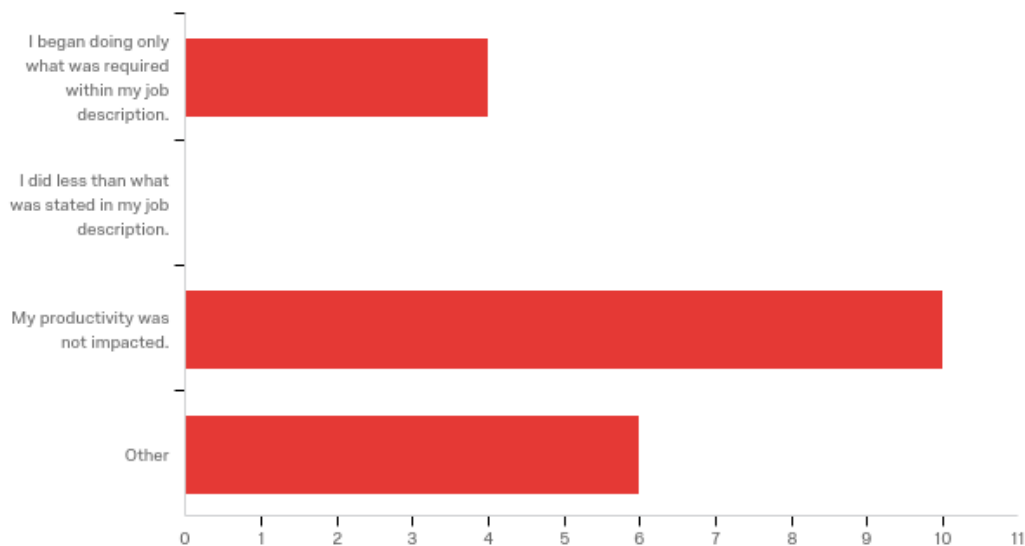
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When your connection decreased, how did it impact your level of productivity? - Selected Choice	1.00	4.00	2.90	1.04	1.09	20

#	Answer	%	Count
1	I began doing only what was required within my job description.	20.00%	4
2	I did less than what was stated in my job description.	0.00%	0
3	My productivity was not impacted.	50.00%	10
4	Other	30.00%	6
	Total	100%	20

Q34_4_TEXT - Other

Other – Text

| |
|---|
| asked to do more |
| I still did more than was required by my job description, but felt less inclined to volunteer for extra duties. |
| I did the parts of my job that were most aligned with the reasons I'd taken the job. |
| Morale decreased |
| I still did more than was expected but the quality decreased |
| I did what was asked and expected, but not more/taking initiative to solve/resolve other matters like I had before. |

Q32 - When you first began your job, how would you describe your connection to the mission of the organization?
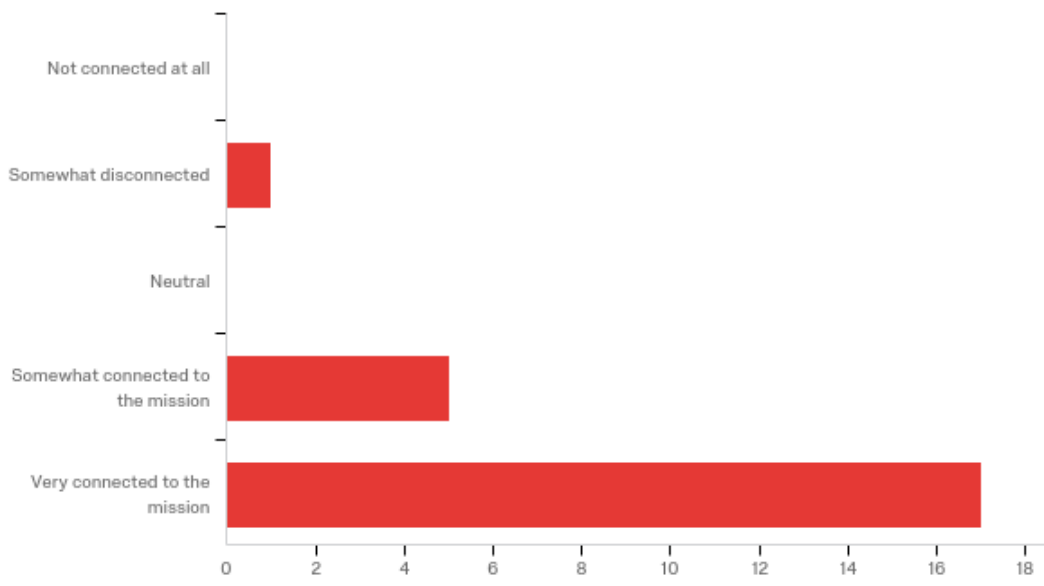
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When you first began your job, how would you describe your connection to the mission of the organization?	2.00	5.00	4.65	0.70	0.49	23

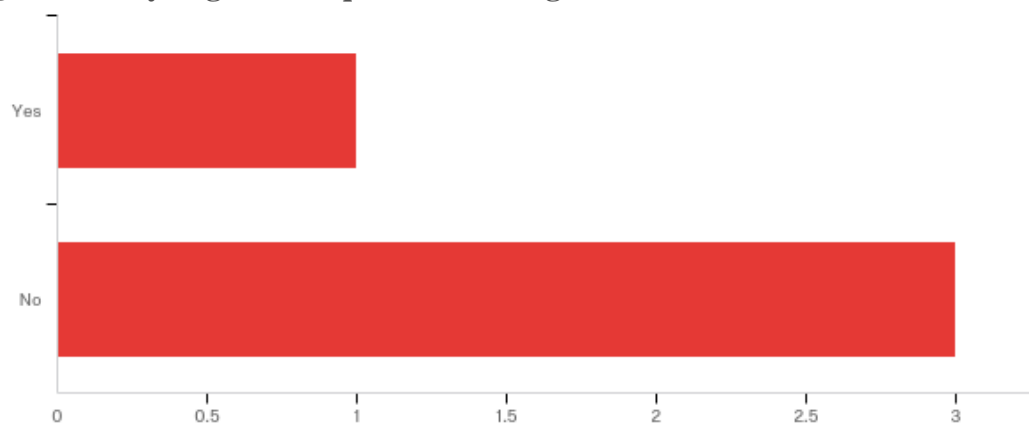| #	Answer	%	Count
1	Not connected at all	0.00%	0
2	Somewhat disconnected	4.35%	1
3	Neutral	0.00%	0
4	Somewhat connected to the mission	21.74%	5
5	Very connected to the mission	73.91%	17
	Total	100%	23

Q26 - Have you ever had a senior position for which you were under qualified?
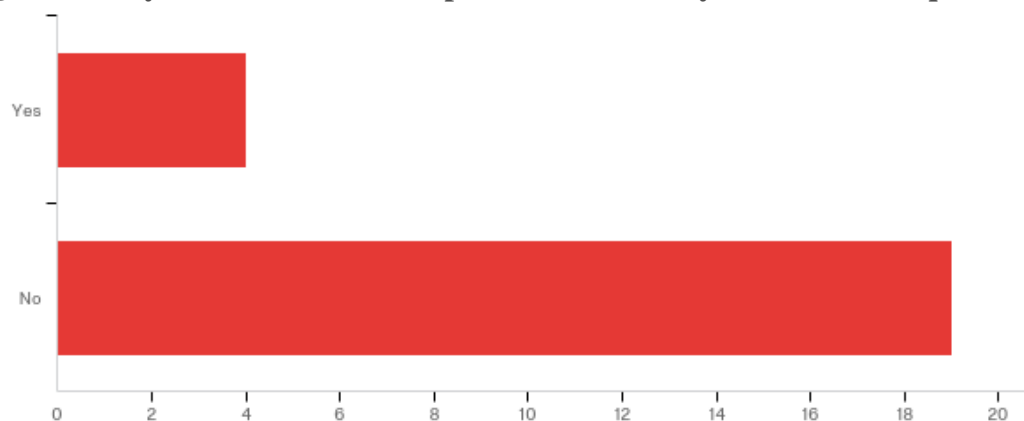
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Have you ever had a senior position for which you were under qualified?	1.00	2.00	1.83	0.38	0.14	23

#	Answer	%	Count
1	Yes	17.39%	4
2	No	82.61%	19
	Total	100%	23

Q27 - Were you given adequate mentoring?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Were you given adequate mentoring?	1.00	2.00	1.75	0.43	0.19	4

#	Answer	%	Count
1	Yes	25.00%	1
2	No	75.00%	3
	Total	100%	4

Q28 - Is there anything else you would like to say about your experience with equity in leadership roles?

| |
|---|
| Is there anything else you would like to say about your experience with equity in leadership roles? |
| There have been occasions when I, as the supervisor, earned less than male direct-reports. The explanation centered on the longevity of the direct-reports in the organization as opposed to my experience, qualifications, education, or value of the position in the hierarchy. |
| Who you know and how plays a big part in what you do and your title. |
| I've asked for a raise from both men and women. My managers changed yearly, and I found men were less responsive initially but able to secure a raise quickly and advocate easier. I only secured the raise when I was managed by a man who was managed by a man, and I was 100% to leave the role and organization. My female boss who was managed by a female leader faced more challenges and roadblocks and was unable to move the needle forward. |
| It's somewhat challenging to answer some questions in the context of my role since I'm the only. I compare to colleagues in other school environments. |
| Yes. My experience with equity in leadership is blurred because administrators come with their own personal agendas. it seems as if the good ole boys network is alive and well. The nine years that I have served in my current position I have had three male supervisors and none them had backgrounds in social services. |
| I am curious about how the pairings for male/female SLTs are discussed during hiring. I see my situation replicated at several different school sites. |
| I work in a field that is predominantly female, but leadership is predominantly male |
| It definitely feels like in the organization, at itmes, it's about who you know, not what you know. Sometimes loyalty to certain people gets rewarded before qualifications, committment and ability. Some of us don;t play well by the rules of "politics" so we are underar valued in our abilities to bring change and ideas to the organization. It wears us out and we give the bare minimum. It hinders creativity, motivation, and the will to do more than expected. |
| I feel that I'll be denied a promotion because my direct supervisor gets credit for all of my work |
| It's hard to flesh out why I will do my work relative to others because I don't define my goals that way. With that said my gender and race feel insxtricably linked within the context for why I do show up at work the way I do. Also I answered these based on a job I just left. |

Q31 - If you are interested in participating in an interview, please include your name and number below.

Q35 - Currently, how connected to the mission of the organization are you? If no longer in the role, how connected to the mission of the organization were you after 1 year of employment?
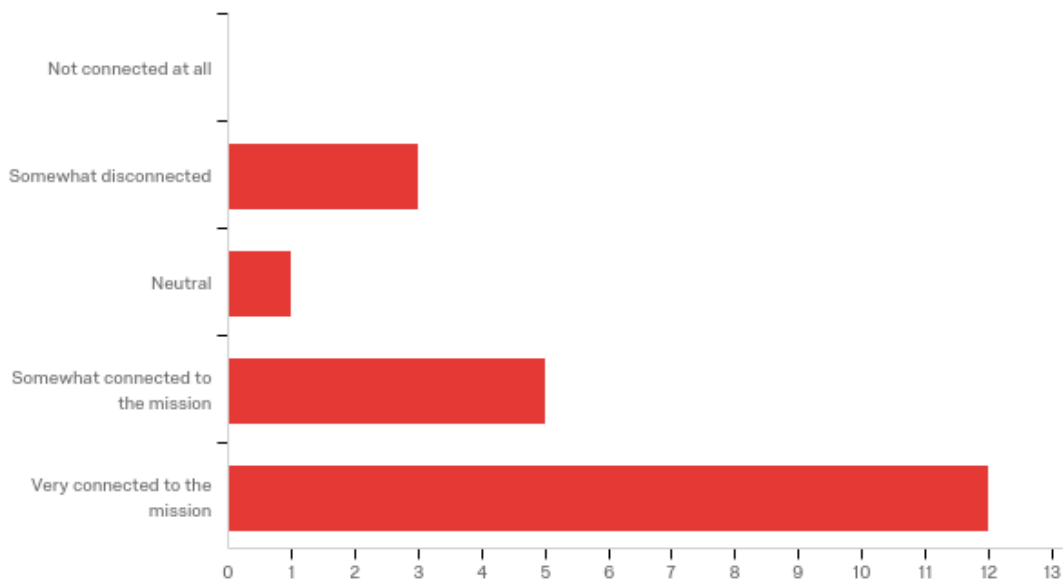
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Currently, how connected to the mission of the organization are you? If no longer in the role, how connected to the mission of the organization were you after 1 year of employment?	2.00	5.00	4.24	1.06	1.13	21

#	Answer	%	Count
1	Not connected at all	0.00%	0
2	Somewhat disconnected	14.29%	3
3	Neutral	4.76%	1
4	Somewhat connected to the mission	23.81%	5

| 5 | Very connected to the mission | 57.14% | 12 |
| | Total | 100% | 21 |

Q24_9_TEXT - Sentiment Polarity

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Q24_9_TEXT - Sentiment Polarity	0.00	0.00	0.00	0.00	0.00	4

Q24_9_TEXT - Sentiment Score

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Q24_9_TEXT - Sentiment Score	-5.00	-1.00	-2.75	1.79	3.19	4

Q24_9_TEXT - Sentiment
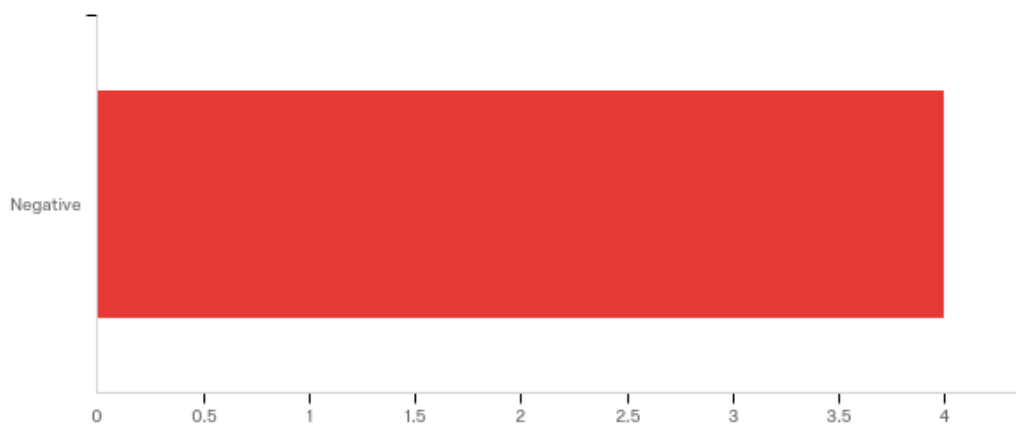
Data source misconfigured for this visualization

#	Answer	%	Count
1	Negative	100.00%	4
	Total	100%	4

Q24_9_TEXT - Topics
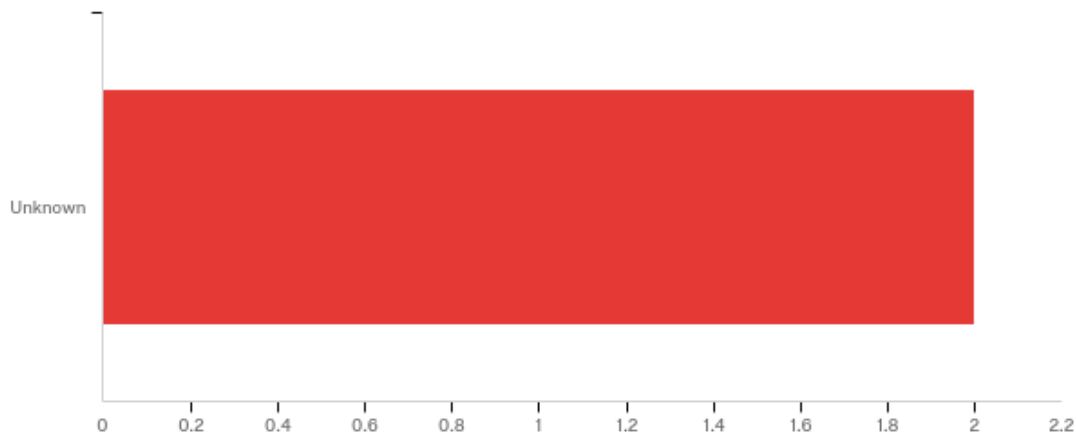
#	Answer	%	Count
1	Unknown	100.00%	2
	Total	100%	2

Q24_9_TEXT - Parent Topics
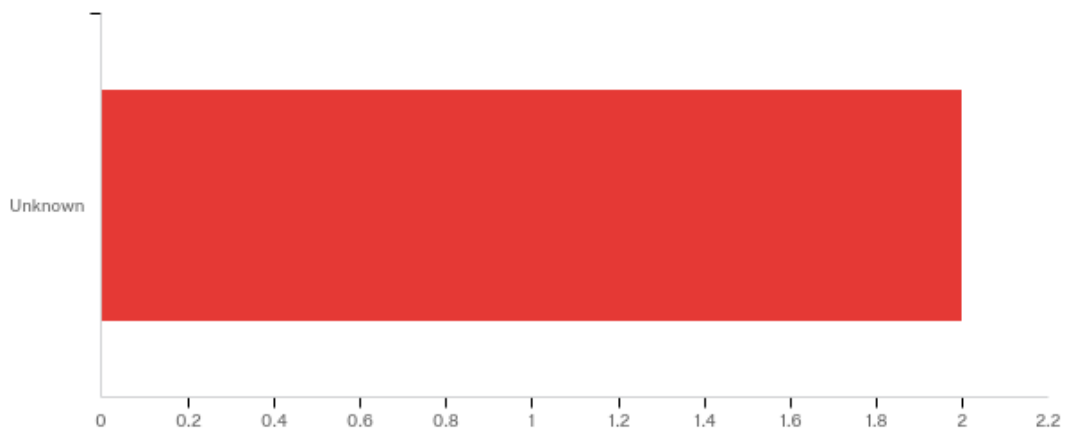
#	Answer	%	Count
1	Unknown	100.00%	2
	Total	100%	2

Essential Experiences Teachers Identify as Supporting their Growth

in Innovation, Creativity, and Social Responsiveness

by Skyler Wiseman

M.A.T Webster University, 2006
B.A. Western State College, 1977

Table of Contents

Abstract

"If we teach today's students as we taught yesterday's, we rob them of tomorrow." John Dewey

The traditional role of education in this country has been to prepare the next workforce. This role has been responsible for teaching children through the colonial, agricultural, industrial, mechanical, computerized, and presently the innovation era. This new era opens a whole new world for educators. A common phrase teachers have heard has been about preparing students for jobs that haven't been created yet. Teachers also have been told about the skill set this generation of students will need to be successful. The World Economic Forum published an article titled, "The Most Important Skills of Tomorrow, According to Five Global Leaders." The five skills (or practices) they recognized were as follows:

1. Soft Skills, (interpersonal skills including communication, empathy, listening, etc.)

2. Data Literacy with A Strong Dose of Empathy

3. Skills That Computers Will Never Likely Master

4. Transferable Skills

5. An Entrepreneurial Spirit and The Skills to Know How to Apply it

Recently, Wagner and Dintersmith (2015) teamed together to write a book, which has since become a movie, entitled *Most Likely to Succeed, Most Likely to Succeed: Preparing our Kids for the Innovation Era*. In their book, the authors lamented the time students wasted learning "what can be outsourced on their smartphones" and not the skills they need (Wagner & Dintersmith, 2015, p. 5). The skills relevant to this study

included the following: a) learning how to learn, b) communicating effectively, c) collaborating collectively and effectively, creative problem solving, managing failure, effecting change in organizations and society, building perseverance and determination, and leveraging your passions and talents (Wagner & Dintersmith, 2015). To prepare the students with these skills takes teachers trained to do so, and who embrace the new skill set needed. According to Wagner and Dintersmith (2015), unfortunately, previous decades of a misguided emphasis on school testing, scripted curriculum, and randomly following the latest trends in education have not promoted skills in critical thinking, application of concepts and issues of social justice and diversity. The nation's young citizens and teachers have paid this toll.

The failure of the last 12 years with the No Child Left Behind Act (2002) has created a generation of teachers spending significant time in the classroom, teaching to the test (Dee & Jacob, 2010). Dee and Jacob (2010) wrote:

In states where the tests have important consequences for the schools, roughly 36% of elementary teachers reported spending more than 30 hours per year on test preparation activities, compared with only 12 percent of teachers in states where tests had few consequences for schools." (p. 155)

Teachers who previously used pedagogy congruent with the traditional sage on the stage philosophy now have begun to shift to a new paradigm, one in which critical thinking, application, and social justice (Hammond, 2017). The researcher's experience as a professional development provider for 13 years and classroom teacher for 24 years has shown that often teachers have been thrown new textbooks or programs to learn in a single professional development (PD) session, and then immediately expected to

implement it in their classroom with fidelity. The process of integrating a prescribed new curriculum or program, coupled with specific students' needs or the abilities and interests of the teacher was complicated and fraught with peril.

The norm for school districts has been to bring in new programs by way of one to four professional development (PD) experiences for the teachers in which teachers were given the scripts and materials to implement the programs (Hammond, 2017). Indeed, research on PD in the United States found that most teachers receive PD of short duration (less than eight hours on a topic, usually in afterschool workshops) and that, during the No Child Left Behind Era, there was an increase in this short-term approach and a decline in access to more sustained professional learning approaches (Hammond, 2017).

In this model, the expectation is for the teachers to implement it as scripted in PD with fidelity (Hammond, 2017). Little to no time for meaningful discussion, between the teaching-peer groups, instructional coaches, or administration was given to examining the impact on their particular students, teaching schedules, or integration with the teachers' understandings previous experiences with the topic and concepts. This disconnect between the program and the teachers often has led to teachers either not implementing the programs, or reading them as scripts. By doing so, much is lost in the way of creativity, innovation, and response to student input.

Impactful learning experiences but had fallen out of favor since the No Child Left Behind Act (No Child Left Behind [NCLB], 2002) push for standardized testing dominated the American public school system for the last 20 years. In recent years with the advent of brain research, cultural relevancy, new standards such as Common Core (National Governors Association Center for Best Practices, Council of Chief State

School Officers, 2010) and Next Generation of Science Standards (NGSS Lead States.

(2013) have made the need for new directions for teaching has become apparent.

Research in the field has demonstrated that effective learning for educators has,

at minimum, the following four qualities:

1. Professional learning should be intensive, ongoing, and

connected to practice.

2. Professional learning should focus on student learning and

address the teaching of specific curriculum content.

3. Professional learning should align with school improvement

priorities and goals.

4. Professional learning should build strong working

relationships among teachers and provide time to collaborate.

The researcher's role with a research institution for the last 13 years included

working with many schools and districts in the St Louis region that were interested

implementing cutting edge, research-proven methods of best practices to guide their

teachers in professional development. These schools and districts were chosen due to

their responses to surveys and focus groups. Surveying teachers and administrators,

collecting sufficient data, analyzing and synthesizing results about authentic experiences

that teachers have identified as meaningful to their growth and understanding of this

paradigm shift in teaching are first steps in reforming how professional development

occurs in schools. So often the curriculum provider is set on transmitting their agenda,

rather than creating a collaborative approach with the participants who will be in charge

of implementing the program to their class. Frustration often occurs; the students,

teachers, and administrators who thought they were giving the teachers what they needed find out that little to no change happened in classrooms after professional development. (Mahlangu, 2018).

Acknowledgements

This journey has taken many twists and turns on this river of knowledge and insights. There have been many safe havens and harbors along the way. The main co-pilot has been my advisor Dr. Phyllis Balcerzak, her steadfast faith and support has been critical to getting to the finish line. Drs. Keith Miller and Theresa Coble are owed a debt of gratitude for their support as well. Dr. Ralph Cordova, thank you for creating this unique cohort and having faith in the creative and generative design practice.

I will forever be grateful to Victoria May and Mark Kalk for hiring me to help create mySci at Washington University, and to Deborah Patterson for her support the 13 years I was part of this amazing project.

My main mentor shall always be Jan Phillips, the mother of adventure education, exceptional educator and director of The College School for 35 years. The education I received from working there for 20 years is evident in every word of this dissertation. The people I worked with there are the best, and I was fortunate to have the experiences I did. I am proud to be an acorn from this mighty oak tree.

To my family, my three brilliant children and my six loving siblings, I thank you for your support and belief that I could accomplish this herculean task. And Kai, you have been my inspiration to become Dr. Gramma.

Chapter One: Introduction

Many teachers, both experienced and novice, find it challenging to adopt high-quality, student-centered learning strategies that are personalized and flexible (Darling-Hammond, Hyler, & Gardner, 2017). Teachers who have taught for many years often have employed methods that had worked for them under standards that were meant to guide learning for a 20th century workforce. On the other hand, novice teachers were trying to figure out classroom management, their school cultures, expectations, and curriculum as they too moved along their careers (Wong, 2018). The heart of this study was deepening educators' and administrators' understanding of experiences that teachers identified as being instrumental to their growth as capable, creative, innovative individuals.

Research Questions

The following research questions guided this study:

1. What kind of experiences do teachers identify that they need to become the responsive, innovative and creative members of an educational community?

2. How can professional development reflect the variation in backgrounds of teachers so that all teachers reach their potential as innovative, creative educators?

3. What professional learning experiences do teachers who have been in the professional 3 years or more identify as being essential in their growth?

Significance of Study

How many schools or districts would love to be in a place with a similar climate as described by Ariel Sac (2017), a teacher from New York City? The research was extensive and varied on the effectiveness of professional development and how to improve school climate. Sac (2017) wrote:

Staring down the next three years to 2020, wondering how public schools and all our students will fare, I know that because my colleagues and I have created solid structures through which we communicate, explore challenges, and think our way toward solutions, we're poised to weather the storm. We will not only survive, but we'll also engage thoughtfully with students and one another every day. We're ready to adapt, fight when necessary, and stay focused on what matters most. (p. 43)

Recently, a trend for teacher chosen PD, has surfaced, both from the Department of Education, which helped teachers identify that the best opportunities can be a challenge Will (2019). The focus of this research was to reveal experiences that teachers, of varying levels of experience, recognized as being instrumental to their growth as capable, creative, innovative individuals. Many organizations, including for-profit and non-profit organizations, offer professional development for school districts (Berg, Carver, & Mangin, 2014). Billions of dollars every year are spent on professional development for teachers, and depending on the school district can cost up to $18,000 per teacher per year (*The Mirage,* 2015). How effective the PD has been in teacher growth was a significant point of this research (TNPT, 2015).

In this study, the researcher will examine teachers and collect their key experiences they had to help them in their growth as innovative teachers. The data from this research could be translated into strategies that could help guide administrators to select the kinds of professional development teachers need to be the most effective for today's students.

Chapter Two: Review of Literature

Innovative teaching seldom results from the influence of just one factor (Darling-Hammond et al., 2017). The following review of selected studies in the field highlighted findings most influential in innovative school definitions and identified key school experiences that have led to teacher advocacy for best practice. Using these innovative school descriptions, ERIC produced 9,439 results and Google Scholar produced 2,060 results of different publications that have covered this topic. The literature review is organized according to four different themes: a) Learning from students, b) Innovation in educational settings, including assessments for creativity and innovation and current innovative practices, c) teacher buy-in and collaboration, and d) sustainability of change.

Learning from Students

Central to the design of professional development programs has been the expectation that teachers change their practices to benefit student learning (Brigid & Darling-Hammond, 2008). An important way that effective change is measured is through student voice. For example, Hanich (2009) studied teachers who interviewed their students about their learning after the teachers had participated in a workshop on a new literature study. The teachers were surprised by how much they learned from the students, and they felt the results of the interview process connected their practice to educational theory (Hanich, 2009). The students reflected the change the teachers experienced in the workshop (Hanich, 2009). Also, Hanich (2009) explored how the teachers needed to learn how to interview, whether it was their students or other teachers. Hanich's (2009) method of the interview process may provide some guidelines for the researcher's development of the interview process.

Innovation in Educational Systems

  Assessments for Creativity and Innovation. The next area for review was the different assessments in use currently for the innovation or creativity. Tyunnikov (2016) developed a survey to evaluate teachers' capacities for innovation. However, the researcher only developed it and did not put it into practice (Tyunnikov, 2016). Horn and Evans (2013) have studied how to move schools from anachronistic factory-based school models to more student-centered, digital choice-based models. They found a student-centric system that, using digital support, could customize each student's distinct learning needs and bolster each student's achievement (Horn & Evans, 2013). Sternburg (2009) looked at how to innovative schools used different forms of assessment. The alternative kind of assessment writing and situational judgment questions proved twice as reliable than SAT scores for judging success in college (Sternburg, 2009). More people of color performed better on the alternative tests as well (Sternburg, 2009).

  Current Innovative Practices. What exactly defines innovation had many different answers, depending on the lens of the researcher. Breunig, (2009) examined the differences between experiential education and traditional methods. This researcher asked, specifically, how experiential education and conventional education traditions might move closer together (Breunig, 2009). Breunig (2009) believed both traditions needed to learn from each other to reform education. And, as reported by the *Year Two Evaluation Report* completed by SRI International for the new Microsoft Schools in 2010, comparing how teachers innovated in their positions in schools in different districts with different traditions and challenges will be addressed in this study.

Richard, Battistoni, Rost-Banik, Netz, and Zakoske (2015) completed a fascinating survey of the use of reflective journals for synthesizing a practicum experience. The experiment found most critical was the use of a variety of reflective activities including formal and informal discussions of the specific action they performed. Journal writing and online discussions were found least helpful (Richard et al., 2015). Richard et al. (2015) also discovered that dialogue with close friends were most beneficial, as well as private reflections and those with work colleagues to be most valuable. These kinds of findings informed this researcher's interview protocol, so teachers' views on effective learning could be surfaced.

In order to innovate teacher professional development, Haviland (2012) suggested turning Bloom's taxonomy on its head, which meant to start with the level of Creativity, then Evaluating, Applying, Analyzing, and leave Understanding for last. Teaching creativity included formative assessment and carefully constructed rubrics that focused on creativity (Haviland, 2012). The author suggested the best means for increasing faculty comfort with the lack of linearity in encouraging student creativity was to model it, to nurture it, and to require supported change and to give faculty the tools for accessing it (Haviland, 2012).

It was evident in the research that creativity alone was not enough to increase teacher effectiveness (Haviland, 2012). There were a number of qualities that were known to help make effective teachers (Graybeal, Yarbo, & Knight, 2007). Graybeal et al. (2007) found many factors that were considered: a) relationships, b) patience, c) knowledge of students, d) dedication, e) subject matter knowledge, f) professionalism, g) ability to engage, h) teaching skills, i) creativity, and j) classroom management.

Teacher Buy-in and Collaboration

How to get teachers and administrators to buy-in into a new way of dealing with professional development was also an important part of this study. Penuel (2016) has researched how to sustain innovation with teachers over time. He found that teachers who perceived a deeper level of interest in the lessons by their students continued the program after the initial pilots (Penuel, 2016). The initial buy-in from teachers required continuous collaboration with the design research team, administrators, and students for years (Penuel, 2016).

Sustainability of Change

The SRI International for Microsoft Worldwide Public Sector (2010) also studied introducing innovation to more traditional schools. The organization found adopting a new way of teaching took at least two years (SRI International, 2010). There was significant progress in the first year, but the progress dropped off in the second year, as the reality set in, that starting with traditional schools was much harder to change practices than building a new one (SRI International, 2010). This article suggested as important that a study, such as the proposed research, interviews and includes surveys of teachers from a variety of traditions, and experience levels, as well as a diversity of demographics (SRI International, 2010)

The previous work other researchers completed demonstrated the complexity of this study. Reading the correlating the literature presented ideas about the types of questions to ask and what direction to go in after analyzing the data from the surveys of those questions. For example, the researcher discovered that she wanted to ask questions of the teachers about having a chance to reflect, to talk with peers, and to try something new in

the classroom, to have a choice in professional development opportunities, and not to feel

suppressed by testing or time constraints.

Chapter Three: Research Methodology

Beginning with the view from the teacher on what experiences they identified as important in their growth as innovative and responsive teachers, this research focused on those events and how they can be translated into professional development experiences for other teachers. Sawyer (2018), an educational researcher from the University of North Carolina, recently published an article in the *Journal of Learning Sciences* titled *Teaching and Learning How to Create in the Schools of Art and Design*. He gathered data through open-ended interviews, observed in classrooms, as well as collected examples of work, websites, field notes, and curriculum materials for his study (Sawyer, 2018). From there, Sawyer (2018) applied Strauss and Corbin's (1990) Grounded Theory Methodology to identify relevant themes. This lens of open interviews and Grounded Theory Methods seems to be an excellent model to follow. There was data already available from teachers in the researcher's network and she was able to conduct interviews from teachers she had observed and identified as extending and adapting given curriculum in creative and innovative ways (Sawyer, 2018). While Sawyers' (2018) common themes emerged as Learning Outcomes, Assignments, and Practices this researcher included such topics as reflection time, peer work and communication, exposure to new ideas and teacher choice for common themes.

The goal of this research was to examine the kinds of professional development teachers recognize as being significant to their growth as innovative and creative teachers. Using a mixed-methods design to study the variations in teachers' perceptions of the type of professional learning that is useful to them when learning a new innovative instructional program will be implemented (Creswell, 2014). The research

factors are explained in Table 1.

Table 1

Research Factors

Research Factors	Specific Questions	Data	Analysis
Teacher Capability/ Confidence	What was one thing you found helpful about today's workshop? How will today's PD affect your classroom practice?	Big Survey (N=1300)	N=1300 a. (0-3 years' experience) b. (3 or more years' experience)
Meaningful PD and Adaptation to Classroom	How will today's PD affect your classroom practice?	Big Survey (N=1300)	N=1300 a. (0-3 years' experience) b. (3 or more years' experience)

Population and Setting

The primary source of the research came from surveys given to teachers after

attending a three-hour workshop in which they were introduced to a new science

program. The program and teacher workshops, repeated at many different school sites,

were created by a regional university's outreach program and adopted by regional

school districts in which the teachers worked. The professional development workshops

were intended to make the experience beneficial to all teachers, making it a shared

experience, with many individual teachers inhabiting the same learning environment

and being given the same material. The professional development experienced was

designed for teachers to learn new content, to use the unit curriculum and materials, and

depart excited and ready to teach the science unit to their students. This researcher

explored the effectiveness of the single approach of this learning experience on the

experience of teachers who came from a wide variety of experience and expertise.

The general hypothesis was that variation in teachers' previous experiences

with science and inquiry-based thinking as presented within the program would

affect their perceptions of the professional learning experience.

Sample and Participation Data

A primary source of data in this study was a survey completed by 1,300

participants over a one-year period of time. In the survey, participants were asked their

names, schools, school districts, topics of workshop, and facilitator. The survey also

asked the participants how many years they had taught this specific science program to

their students. After those informational questions, the survey asked five more questions

regarding the workshop (Table 2, Post Workshop Survey, 2016-17)

Table 2

Post-Workshop Survey 2016-17

1. What was one thing you found helpful about today's workshop?
2.What is one thing you would like to see us do differently in our next workshop?
3.How will today's PD affect your classroom practice?
4.What other kinds of PD would you like to have in the future?
5. What else would you like to tell us?

For the purpose of this study, Question 1 and Question 3 (see Table 2) were selected because the researcher was interested in finding out if there were common themes that first-year teachers shared compared with the teachers with three or more years of experience. In this context of all participants having completed the same PD, what could be learned about the needs of novice teachers compared to experienced teachers? This information could help guide future workshops, which was one of the foci of this research. A comparison of findings with some of the recent literature written about professional development and the perceptions of experienced teachers who implemented an innovative curriculum in a highly respected experiential school was also conducted as part of this research.

In this study, the researcher hypothesized that a) variations in teachers' backgrounds would influence their perceptions of the usefulness of a single professional learning session for all participants and b) experienced teachers would need different

professional learning than beginning teachers in order to flourish and to continue being innovative.

Collection and Analysis Procedures

Qualitative research can be used as a rationale or justification for a specific reform or change (Creswell, 2004). As a result, the findings of this study may be of interest to both the participating educators and school districts in which they were employed. This research sought to understand the factors that went into both new and experienced teachers gaining the confidence and competence to become more innovative and creative in their classrooms. Information obtained using a qualitative approach in this setting may be useful to schools in discussions about effective professional development practices for both teachers and administrators.

In Phase One of the research, the researcher examined participants' responses on exit surveys that were collected after the initial three-hour introduction sessions of the new program from a Martha Washington University Science Program during the 2016-17 School Year. The Martha Washington University Science Program began in 2005 with a very limited pilot grouping and has grown to serving hundreds of teachers and thousands of students throughout the region. This program generated 1,300 surveys from kindergarten to fifth grade teachers, representing 14 different school districts; urban, suburban and rural, and was attended by teachers of varying experiences in the teaching profession. Up to 30 of the 1,300 were selected for Phase Two of this study, based on variations in teachers' experiences.

In Phase Two 30 teachers were selected to be interviewed from the responses on the survey. In Phase Three, the Standard for Comparison or Experienced Teacher Survey

was administered to the participants in order to examine the perceptions of up to 10 teachers through in-depth interviews. These teachers worked at The University School, which was renowned in the region for its 50 years of innovative practices including experiential and adventure learning, reflective learning practices, and educating for sustainability.

The research involved complex procedures. First, from the surveys of the 1,300 teachers, the researcher separated the responses into two groups: a) teachers using the program for the first time and b) teachers who used or piloted the program for three or more years. Next, the researched selected a subset of responses, which included 75 new and 75 experienced teachers to examine further. After this was completed, the researcher coded the responses, using similar words and phrases that were relevant to the research questions. Fourth, the researcher compared the themes that emerged from the coding of the 150 teachers for similarities and differences in their perceptions of the workshop and how it would translate in their classroom practices.

Standard for Comparison of Experienced Teacher Survey

1. Chose 30 teachers to interview, 15 new and 15 experienced, to further clarify the responses from the 2016-17 surveys.

2. Chose 10 teachers to interview from the University School for the kind of individualized, creative and responsive professional development that an independent innovative school could offer. The survey questions are in Table 3.

Table 3

Innovative Teacher Survey

1.What factors do you identify as being crucial to your development as a capable, creative, innovative teacher?
2. Was having a choice during PD important? How?
3. What kind of PD do you remember as encouraging your growth?
4. Was there a guest speaker or conference that sparked your thinking?
5. Would or did being given time to reflect, or a discussion with colleagues affect your growth?
6. Was it a combination of some of the above?
7. Are you new to teaching (one through three years)?
8. Do you work in an urban or suburban school?
9. What role does school culture do you identify as critical to your growth?
10. How can those events be replicated to help other teachers?

Note. These questions were administered in 2019.

Additionally, as a state of the arts comparison of standards, 10 experienced

teachers from a highly rated innovative school (The University School) were interviewed

with a companion survey that explored essential experiences they identified as critical to

their growth and ability to change and adapt their teaching to a changing society. These

teachers were recruited from a pool of teachers who had spent more than eight years at

the University School and may no longer teach at the school. Responses from these interviews were shaped into a model of teacher perceptions when innovative professional development practices are implemented.

Validity

The surveys used in Phase One of the study were existing surveys with identifying information removed and replaced with an identifier code. The surveys were randomly selected from each of two piles, one representing beginning teachers and the other experienced teachers.

In this study, the researcher contacted educators who were employed at 14 different public-school districts and five different charter schools, and then examined their experiences with this professional development. The study involved teachers at different stages of their professions and their knowledge about curriculum, instruction, and assessment. The survey data was collected from within the teachers' working environments, which referred to a natural setting where events occur (Creswell, 2004).

The researcher acknowledged several potential limitations of this study. Firstly, the size of the second survey was small and limited to experienced teachers who displayed exceptionally creative and innovative approaches in their classroom. Those teachers, while having their own pressures and constrictions, did not administer state tests and did not carry the same burden that accompanied that stress. This study also did not include with the teachers from the large survey who gave low scores on professional development feedback usefulness, who felt disenfranchised, and/or were uninterested in applying new theories to their practice. These variables could have been considered in a completely different study in the future, however.

According to Creswell (2009), the idea behind qualitative research is to purposely select participants or sites (or documents or visual materials) that will best help the researcher understand the problem and the research question. Also, the retrospective self-reported nature of the data—while essential for answering the questions specific to this study—were by the definition of self–reported, biased by their classroom and school culture experiences, memory and the retelling of their stories. There was no follow-up with administrators as to their views of the change that occurred in their teachers' classrooms.

Lastly, the bias of the researcher was acknowledged. The researcher was interested in examining evidence for deepening understanding of experiences that teachers identified as being instrumental to their growth as capable, creative, innovative individuals. The subjects chosen for interviews and follow-ups were from a pool of teachers the researcher had observed in the classroom and/or knew from long-term relationships in the educational field.

Bias exists in all study designs, and although researchers should attempt to minimize bias, outlining potential sources of bias enables greater critical evaluation of the research findings and conclusions (Creswell, 2014). Researchers bring to each study their experiences, ideas, prejudices and personal philosophies, which if accounted for in advance of the study, enhances the transparency of possible research bias. Clearly articulating the rationale for and choosing an appropriate research design to meet the study aims can reduce common pitfalls in relation to bias. (Smith & Noble, 2017)

Ethics and Human Relations

The researcher used the role as a professional development provider, mentor and, instructional coach to collect the data. Ethical issues were addressed at each phase in the study. In compliance with the regulations of the Institutional Review Board (IRB), the permission for conducting the research has been obtained. The researcher acknowledged the small sampling for interviewing as a factor for the validity of the research. Subjects who agreed to participate in an interview signed an Informed Consent Form (see Appendix ?) and talked to the researcher in person or on the telephone for no more than 30 minutes. The names of all participants remained confidential. The survey respondents' names were replaced with an identifier. The interviewees were not be named in the study. All data was stored in a locked digital or physical space and will be destroyed three years after the completion of the study.

The researcher hoped that as administrators and teachers witnessed more research-based evidence of effective professional development and growth that helped bring their teaching into the new paradigm of education, more administrators would be more willing to try other kinds of professional development, innovative and incentive programs for their teachers.

Chapter 4:

Results and Discussion

The data analysis supported the hypothesis of the study, that the particular

expertise and experience of teachers affected their responses to the workshop. There were

potentially several factors that may have played a part in the kind of professional

development that was most effective for individual teachers. The ability of the researcher

to recognize themes or clusters of factors that went into the connections of the teachers to

their experiences during the data-analysis phase allowed for an understanding of

unpacking what kinds of professional development participants reported working best for

teachers with different backgrounds.

Survey from a Workshop Introducing a New Program

The teacher responses to the first survey (n=1,300) analyzed for this study were

in response to a three-hour workshop. This workshop, repeated at many different school

sites, was an introduction to a new science program adopted by the participating school

districts. The workshop was given once a quarter, introducing a new science unit to be

implemented that quarter. The district administrators had met with the assistant director

of the program previously to discuss the various aspects of the program, including how

to dispense the kit materials and give professional development for the teachers'

implementation of the new program. The challenge was to make the experience

beneficial to all the teachers, making it a shared experience with many individual

teachers inhabiting the same learning environment and being given the same material.

The hope was for the teachers to go through the workshop, to learn how to use the unit

curriculum and materials, and for teachers to depart excited and ready to teach science in

a new and different way to their students.

Being a science curriculum, there were many lab experiences associated with each lesson that needed both content and pedagogy instruction. The science program was aligned with both Missouri Learning Standards (MLS) and Next Generation Science Standards (NGSS), and was a series of inquiry-based, hands-on experiences that many elementary teachers rarely chose to do in their classrooms. Most of the teachers were used to doing science by reading aloud, watching a video, filling out worksheets and rarely, doing a Pinterest kind of craft project to explain a concept. Early research of the teachers' attitudes about teaching science fell into these categories:

- Teachers who are enthusiastic about science and have done some hands-on inquiry oriented teaching.

- Teachers who are limited by school environment, funds, and curriculum as to how much time they can devote to science.

- Teachers whose only experience with teaching science is a science textbook.

- Teachers who are afraid to teach science because of lack of knowledge, teaching methods, interest, and/or confidence.

- Teachers who have not developed an effective teaching practice to meet the needs of the children in their classrooms.

- Teachers who are in an entrenched pattern and have no interest in putting in the effort to explore new teaching practices. (Beyer, 2012)

Some of the participating teachers previously were involved in extended processes of curriculum writing for the program in its infancy and had also participated in university level science certificate programs. Some of the teachers also had previously

piloted the program in their classrooms. All teachers, regardless of their previous

knowledge or experiences, were required to attend the three-hour professional

development workshop.

This variation in teachers' previous experiences with science and inquiry based

thinking affected their perceptions of the professional learning experience. The

workshop meant to serve as a model the inquiry-based approach with a balance of

teacher discussion and hands-on activities with direct instruction from the PD provider.

The teachers' past experiences, guiding beliefs, and interactions with peers and

administrators filtered their reactions to the program, as evidenced in their responses to

the survey.

The most common response to the question of *"What was most helpful in today's*

workshop?" (Wiseman, 2016) was related to their abilities to review the lessons. One

participant, a first-year teacher, answered, "Being able to go through the format of the

lessons and experience the lessons first-hand." Another first-year teacher responded,

"Actually going through the lessons of Unit 14." First-year Teacher 3 wrote, "Actual

presentations of various lessons and being able to ask questions." And First-year Teacher

4 echoed the same, "Being able to practice the upcoming lessons."

The next most common response from the survey with first-year teachers was the

opportunity to exchange experiences with other teachers. One first-year teacher wrote,

"Collaborating with colleagues to share ideas on lessons and assessments."

Another first-year teacher wrote, "Delving into all lessons from the first unit and

being able to discuss it and ask questions with colleagues." First-year Teacher 6 agreed,

writing, "Discussing good stopping points through lessons." First-year Teacher 7 also

agreed that collaboration was beneficial. The participant wrote, "Examples of how to teach the lessons and being introduced to the PowerPoints for each lesson." And another teacher wrote, "Getting time to view the kits and lessons with my team."

This followed closely with the Walters and Briggs' (2012) study on professional development findings that made the most difference. Their report analyzed the results of 35 studies on teachers' professional development over the past 10 years (Walters & Briggs, 2012). Walters and Briggs (2012) found that professional development had the most impact when the PD:

1. is concrete and classroom-based

2. brings in expertise from outside the school

3. involves teachers in the choice of areas to develop and activities to undertake

4. enables teachers to work collaboratively with peers

5. provides opportunities for mentoring and coaching

6. is sustained over time

7. is supported by effective school leadership. (p. 3)

A summary of the data from the first-year teachers, which included 1,000 responses, for the first question indicated the need for learning the content and time for planning with their peers as most important for professional development (see Figure 1).
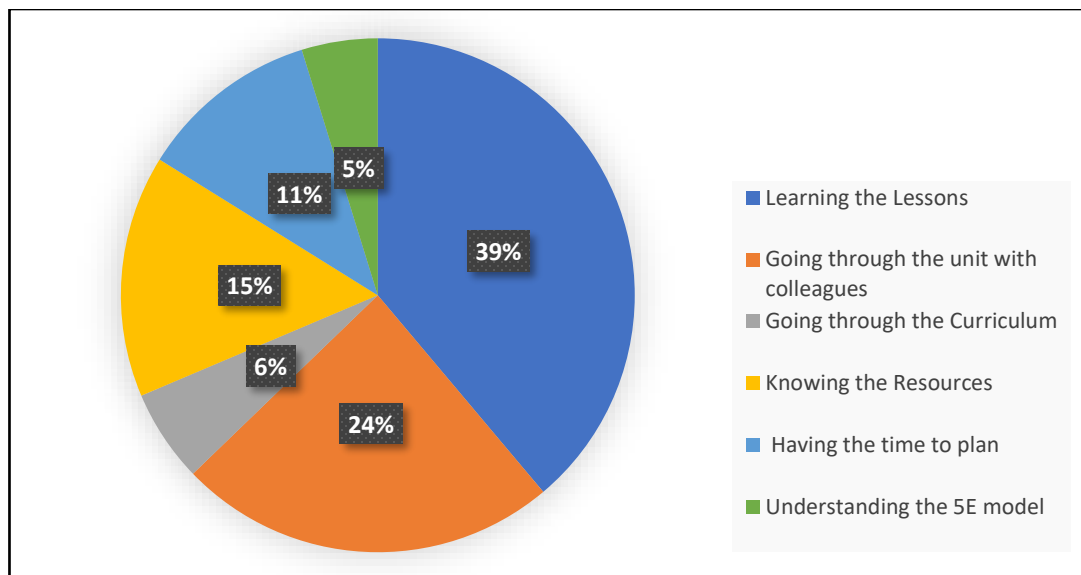
Figure 1. Participants' responses to the following question, "What was one thing you found helpful about today's workshop?"

First Year Teacher Survey, 2016-2017

The other question addressed with first-year teachers was "How will today's PD affect your classroom practice?" This question really delved more into the crux of the study—how teachers perceived their practice would or would not change through their professional development experiences. One of the most common response reflected the teachers' confidence and competence in being able to teach science differently following the PD opportunity.

One first-year teacher wrote, "I will be more mindful about how I teach science-not just teach facts for them to take a test on- actually do investigations where the kids find the answer to their questions."

Another first-year teacher's response sounded similar. He/She stated, "I will be able to teach science and have some awesome resources." First-year Teacher 9 agreed, "My students will be more informed about science," as did First-year Teacher 10 who

said, "It will get me excited to teach science because all of the materials are provided!"

Another participant, also a first-year teacher, sounded enthusiastic in his/her response, which was, "I want to have more experience-based science lessons. First-year Teacher 4 stated, "Students will be able to carry over what they are learning in science into other subject areas which will allow them to deepen their knowledge on the unit being taught."

Other comments the teachers made in the survey in response to the question how their will incorporate the workshop into their practice collaborate that sentiment:

- "It will aid in my science lessons." (First Year Teacher 2)

- "I will be more prepared for science." (First Year Teacher 12)

- "I can improve my science!" (First Year Teacher 5)

- "I am sure that it will be a fun year of science." (First Year Teacher 11)

A summary of the data from the first-year teachers, 1000 responses, for the second question, "How will today's PD affect your classroom practice?" can observed in Figure 2, showing the first-year teachers growth in confidence in using hands-on materials and how to implement the new program.
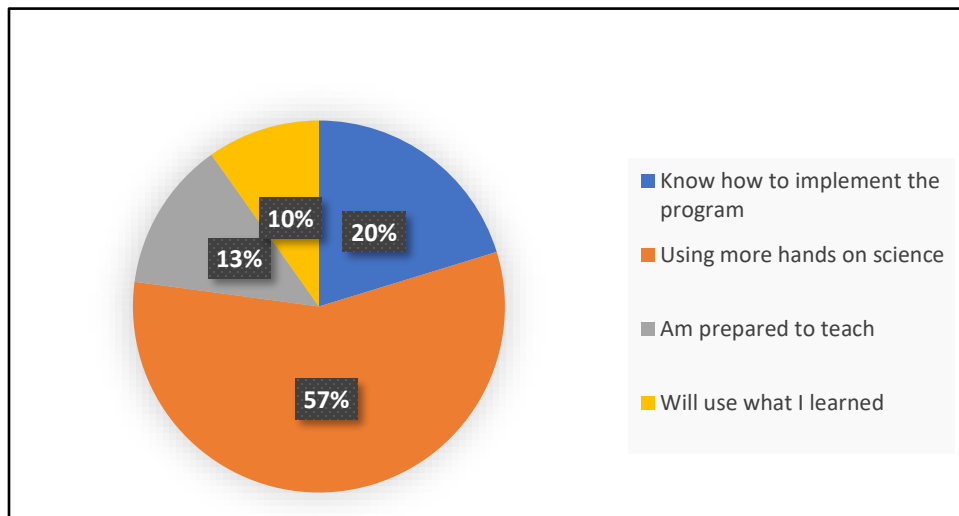
Figure 2. Responses to the First-Year Teacher Survey from 2016-2017 School Year to the Question: "How will today's PD affect your classroom practice?"

In summary, first-year teachers learning a new program that required a change in how they taught in their classroom, identified the following as important to their growth:

- Knowing how to use the program—curriculum and materials

- Reviewing and discussing the lessons in detail

- Time to discuss and plan with their colleagues.

The teachers who had previously taught the program for three or more years had different responses to the questions on the survey regarding what was helpful and how the workshop would affect their implementation of the new program.

Out of the 1,300 teachers who completed the survey, 300 of the teachers had taught the program for at least three years. It is understandable that their responses would have more to do with the revisions and additional materials to the program than learning how to use the program. Every year the program's organizers collected feedback from

teachers participating in the professional development, and then they took the feedback to adjust, add, or delete lessons and materials. One emphasis the experienced teachers shared was on the new additions and changes. One experienced teacher responded, "The new easier access to get to links online."

Several other teachers mentioned in response to the question that they learned about new Google slides, on-line resources, and other materials available to them. In fact one experienced teacher wrote, "We learned new aspects of the curriculum we shared."

Another experienced teacher said they were excited to learn about the new Partner Resource. The experienced teachers expressed that they also found the discussions about setting up centers in their classrooms helpful, which was something very few of the first-year teachers acknowledged. Since the veteran teachers had used the program for several years and were familiar with the content and scope of lessons, learning new ways of using the curriculum and materials was exciting, they stated in their feedback to PD organizers.

In addition to positive feedback, participants provided input into what they found valuable for future PD workshops. One idea that was presented was using the lessons and materials as centers in their classrooms. Their enthusiasm was shared in their responses to what the experienced teachers gained most from the professional development. Participants wrote the following:

- "Ideas for how to incorporate centers into science instruction" (Experienced Teacher 3).

- "Ideas for Center usage for each unit of study" (Experienced Teacher 1).

- "Center Activity Task Cards" (Experienced Teacher 8).

- "Center for during and after the activities" (Experienced Teacher 9).

- "Learning how appropriate centers are for kindergarten" (Experienced Teacher 10).

- "Definitely implement more science centers" (Experienced Teacher 12).

In response to the second question on the survey, which was the following, "How will today's PD will affect your classroom practice," the experienced teachers' responses differed from the first-year teachers' responses in several ways. Embedded in the new science curriculum was the element of engineering. In each of the engineering projects were lessons connected with the science content in each of the units. While the first-year teachers rarely mentioned this aspect, the teachers with three or more years of experience seemed to be more attuned and interested in delving into incorporating the engineering projects, or so was suggested by their responses. For examples, one experienced teacher wrote, "I will do the engineering activity."

Other responses by experienced teachers reflected this response. One experienced teacher responded, "I am better able to teach the engineering aspect of the unit," while another teacher wrote, "I am going to look for other books that will work with engineering."

Another experienced teacher said, "I am now focusing on thinking like an engineer to help assist my students in thinking the same way," and still another wrote, "I will include the engineering design cycle across curriculums." Thus, many of the experienced

teachers seemed to be more receptive to the concept of engineering after the professional development.

The more experienced teachers also spoke about ways they would incorporate what they learned in the workshop to make their future science lessons richer. While these experienced teachers' responses varied, they also had a common theme of taking science to a new or different level from which they had previously taught in their classrooms.

Experienced Teacher 1 answered, "It will allow me to go more in depth with the content."

Another experienced teacher took it one step further, expressing an interest in cross-curriculum implications. He/She wrote they planned to make "more connections from science to literature text in ELA [English Language Arts]."

Experienced teacher 7 said this would help him/her to do "lots more to do with the program and engaging science," and another teacher responded that this professional development inspired him/her to explore, "more application of skills."

Two more experienced teachers said they planned to do more classroom observations, take more notes, and incorporate 3D ides in their assessments more often after what they learned in the PD workshop.

A summary of the data from the three or more years experienced teachers included 300 responses. For the first question, "What did you find helpful about today's workshop?" teachers' responses were varied (see Figure 3). The experienced teachers often stated that they appreciated the newly added content and how to use the lab materials in a different way.
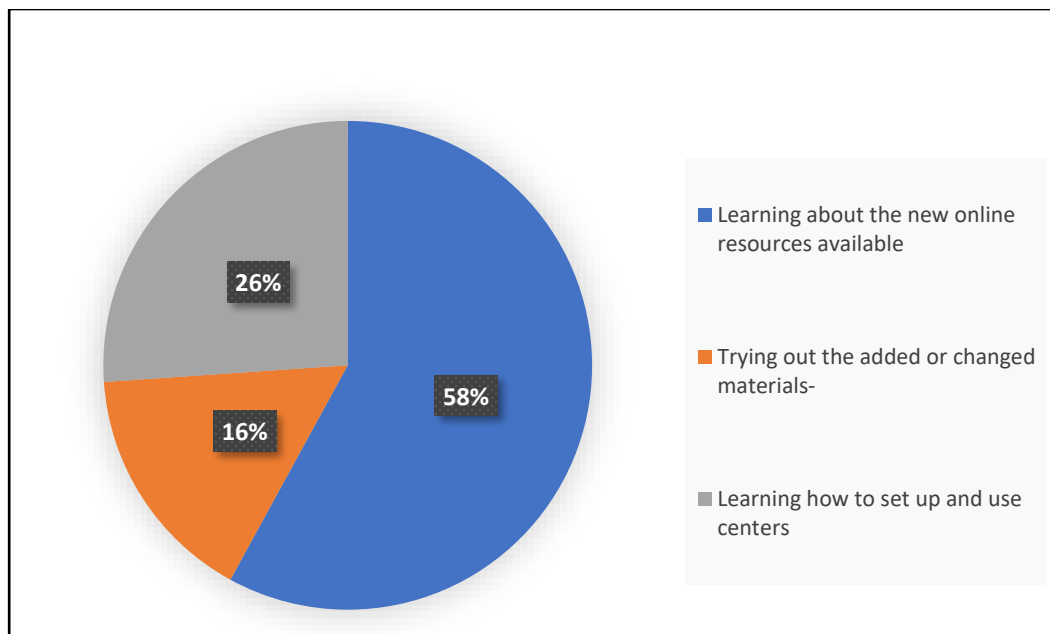
Figure 3. The figure exhibited the responses for teachers with three or more years of experience to the surveys following question: "What did you find helpful about today's workshop?" The survey was administed in the 2016-2017 School Year and highlighted the difference between new and experienced teachers in what they found to be most helpful.

A summary of the data from the three or more years experienced teachers, which included 300 responses, for the second question, "How will today's PD affect your classroom practice?" was reflected in Figure 4. Similar to the new teachers' responses, the experienced teachers' perceptions reflected that they felt they could implement the program at a higher level after having the professional development. The experienced teachers also noted their interests to begin incorporating engineering at increased levels in their lessons. According to the survey's responses, 42% of the participants stated that they would teach science at a higher level having now completed the professional development (see Figure 4). Next, 24% of the experienced teachers stated they felt

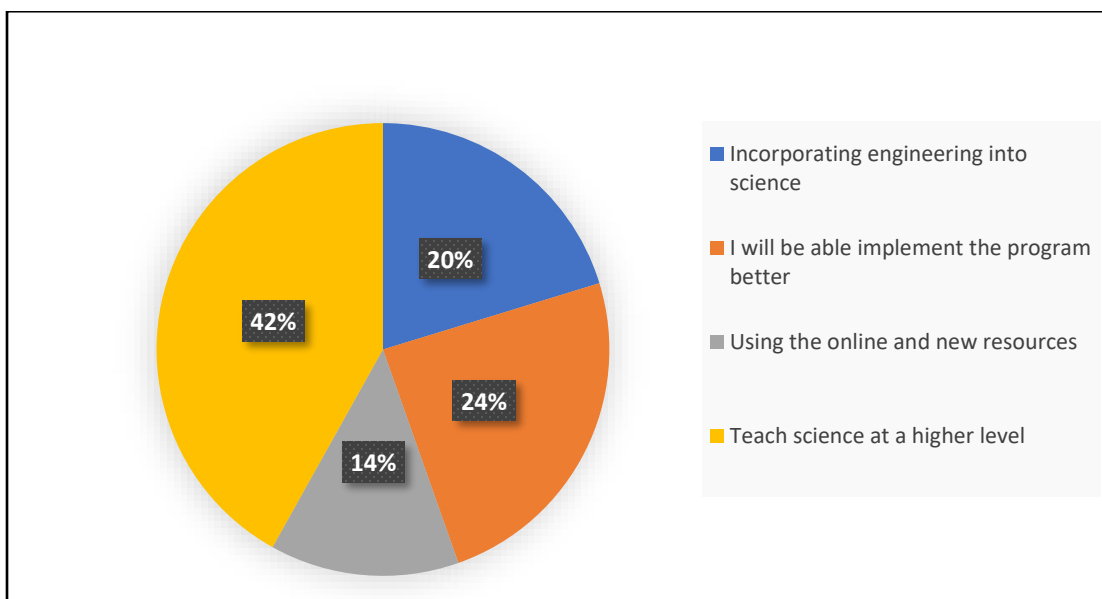confident that they could implement the program better after having the PD (see Figure 4).

Figure 4. Responses from teachers with three or more years to the survey's question of "How will today's PD affect your classroom practice?" Responses collected during the 2016-2017 School Year.

Another significant finding from the study was that the experienced teachers rated the workshop differently than the first-year teachers. Of the participants, 37%, or $n=110$ of the 300 teachers, with three or more years of experience rated the workshop as "neutral or not helpful," whereas 12%, or n=115 out of 1,000, first-year teachers gave a rating of "neutral or not helpful." Therefore, the more experienced teachers found less value in the PD than the less experienced teachers.

In summary, more experienced teachers, receiving the exact same workshop as the newer teachers, identified the following as important to their growth:

- Learning about and trying out the new online resources and materials
- Learning how to set up and use centers

- Incorporating engineering into science

- Being able to teach science at a higher level.

- Knowing how to use the program; curriculum and materials

- Reviewing and discussing the lessons in detail

- Time to discuss and plan with their colleagues.

In response to these findings, the researcher, who admittedly was a professional development provider, mentor, and observer, had a chance to follow up with some of the teachers who had participated in the workshop and survey. The researcher chose the teachers whose responses indicated that adaptation and creativity were evident in their classrooms or expounded upon through interviews.

The interviewer began with reviewing the response given on the surveys and asking the teachers to expand on what they meant by their responses. The teachers who were new to the program whose response as to what was most helpful in workshop was the chance to go through the lessons and use the materials. Further discussion with the teachers resonated with the literature concerning classroom management. One first grade teacher wrote:

The lab activities were designed for students working groups of four. I had not had my students working in small groups before, always did whole class or individual work. Having students work in groups forced me to think about classroom dynamics, space, setting up materials, etc. The first time I tried it, I realized I needed a pre-lesson on taking turns and getting along! I would like to see another workshop on good strategies for grouping.

Another participant, a third grade teacher, reflected on the experience:

Even though I had read the lesson ahead of time, I did not plan on how to incorporate time for the students to develop their own questions or how to answer questions they had without giving them the whole answer to the question. The lesson ended up taking way longer than I thought, and we didn't have time to finish the unit.

Teachers who had taught the program for three or more years expounded on themes identified in the survey as well. The more experienced teachers spoke about feeling that the workshop gave them more tools and strategies to use in the classroom. For example, one veteran fifth grade teacher wrote:

I have always loved having the materials provided for the lessons. Thinking about reusing them as Center activities was very intriguing. I have to re-think my literacy corner work where students work independently. I want to add science books about the unit. I may also partner the students to complete the tasks so they can learn from each other and practice working together.

Another veteran teacher expressed taking away some good points from the PD event:

Even though I have taught this unit before, I realized through the workshop, that I have been skipping parts I thought weren't important (or messy). I am now rethinking how to incorporate more hands-on exploration and not skipping the engage piece to peak students' interest in the lessons.

In addition to take-aways for both novice and veteran teachers, the researcher also found through interviews and observations that the collaboration with peers was crucial to a teacher's mindset about adopting a new way of teaching. One facet participants

mentioned was the grade-level, weekly planning meetings were an opportunity for teachers to plan implementation and to develop strategies for doing so. Held accountable by their peers, being involved in planning strategies, given a choice to round robin the lab activities, integrate language arts and math led to a greater level of implementation and more science being taught in the classroom. In the circumstances where the teachers of the same grade level had either little to no common planning time, or used their common planning time for work other than planning, there was much less of an opportunity to be creative with the curriculum, according to the participants.

One first grade teacher wrote:

> My team was very excited about trying the lessons in a round robin fashion. That way each teacher could be responsible for just doing one lesson and repeating it for the other classes. You could become the expert on that lesson.

Another participant, a fourth-grade teacher agreed:

> We never do anything during our planning time. Two of the teachers who have been there forever, just complain about their students or what work they have to do all the time. Or get on their phones. The one time I tried to bring up an idea for one of the lessons, they told me not to do it, or they would all have to do it.

Experienced Teachers Responses

In the survey identifying transformative professional development experiences, veteran teachers expressed their experiences. This section of this research went beyond the "one-and-done workshop" model. The researcher had access to surveys given after curriculum writing sessions for developing and implementing the new science program. Some of their responses opened the door to examining what was really transformative to

their growth as teachers. A second-grade teacher said, "I really like networking and sharing of ideas. I am always searching for new and improved ways to get my students to learn, this opportunity has given me some ideas."

Another participant, a third-grade teacher, expressed enthusiasm after the conference. He/She wrote, "The collaboration with my peers was awesome. I feel like I learned a lot this week and my teaching will improve because of this experience." Another second-grade teacher agreed and wrote, "I will understand how to teach the lessons better since I wrote them. It also helps me to know where the gaps in our district curriculum are."

A recurring theme that emerged from these responses was that the attendees was how the teachers would apply what they learned in their own classrooms. A fifth-grade teacher responded, "Value for me is that I am learning new science content as well as new materials to do activities with the content. Refining my lesson writing skills."

The feedback spanned grade levels. One first grade teacher said of the PD, "I will become a knowledgeable leader in implementing a new curriculum in my building and district.

Another participant, a fourth-grade teacher, responded to the survey:

> When I worked on my grade level curriculum it prepared me to teach the topics to my class. I feel more confident and better prepared to teach. I can see where my fourth graders will be going and can make sure that they have the background knowledge.

The long-term relationship between the teachers and the professional development providers was also indicated as a positive experience in the growth of the participating teachers. After the workshop, a fourth-grade teacher reflected:

I want to thank you all for all the training and support you have given me these last few years. My involvement with the New Science Program has influenced my teaching more than anything else I've been involved in. I even used the 5 E's to design a lesson about the Pony Express to use as a guest teacher in the hiring process. Thank you! I couldn't have done it without you all!

One fifth-grade teacher admitted to not being more creative in the classroom before the workshop. This participant wrote:

My attitude and interest in science before New Science Program? We just followed the textbook. We didn't get to do a lot of hands on, just paperwork, because we didn't have time. What did we do? I can't remember what we did. …. I was hesitant and nervous. I don't feel like I am an expert and you want the kids to learn. All that measuring and research is hard. I never considered myself a math and science person … I think I am more comfortable now. The science lends itself to hands-on, and they learn better that way … So we, my new partner and I, will discuss it and see what is in her head.

A third-grade teacher added:

I believe that it is very important for students to have real world application with science and being involved with this pilot helps me engage my students with real world science with non-typical topics. The value for being involved is that the curriculum is realistic to use in my classroom.

The researcher was interested in what other unique kinds of experiences took teachers to a new level of classroom practice. A very in-depth study of professional development was conducted by TNPT (The New Teacher Project) in 2015. The candor in which they reported their results was fascinating.

A fourth-grade teacher wrote after attending the professional development:

Back to the intention of getting the students to think like scientists and that is what I am hearing, letting them try these different things. It is systems thinking work. Try it out. This doesn't work. This does. Perseverance is what you are developing.

After years of studying, interviewing, observing and analyzing professional development, their conclusion was that there was not one answer and no "magic bullet." "Meaningful improvement, it seems, defies routine; it is a highly individualized process that seems to vary from teacher to teacher. What works for one teacher may not work for another" (TNPT, 2015).

When teachers reflected and shared what kinds of activities they identified that they believed would help them or have helped them in the past, support from administrators, on the other hand, was critical. One administrator wrote, "For example, even though nearly three-quarters of the teachers we surveyed said that observing other excellent teachers was a good use of their development time, they reported observing excellent peers less than twice a year."

And less than half of the teachers surveyed agreed that their formal evaluators were able to direct them to development opportunities that were aligned to their needs.

Too often, teachers told responded, their development experiences seemed repetitive or focused on information they could read and digest on their own (TNPT, 2015).

The wide variety of experiences teachers chose when given the opportunity, it became evident in teachers' responses to the small survey sent out to a chosen group of teachers from the University School, which were identified by the researcher as creative or innovative by personal observations or responses to their survey questions and then interviewed. A fourth-grade teacher from the University School wrote:

> I attended a five-day conference with The World Peace Game Foundation. The founder, John Hunter, played the game with a group of students while we observed. Our afternoon sessions were with him where we could reflect, ask questions, and learn how to play the game. Our discussions were much about the philosophy of education and student-centered learning.

This teacher had a strong desire to find a long-term project her students could participate in that would delve deeply into social justice, from a fourth-grade student's perspective. The teacher had observed the class the previous year and knew students could benefit from activities that emphasized collaboration and allowed them to develop communication skills for resolving and transforming conflicts. The teacher also expressed having a strong commitment to peace and social justice. As part of the yearly professional development plan that she and her administrator agreed on, they decided this workshop would be worth her attending. The workshop also included an online learning community. The participant said the follow-up support was just as important as the training. She wrote, "The workshop included having access to a forum in which I and others could ask questions, share experiences and offer advice. I go on the forum often."

Having a forum, or community of other educators involved in the same kind of work, was an important part of professional development, according to this study. While the additional online forum was offered at no additional cost and completely voluntary, it was a critical component in helping her to implement a new program for the students. For the teacher to be able to access this forum before, during, and after the lessons was critical to feeling confident going forward. This teacher also addressed the issue of her being the only one in her school trying this new program. She said, "My colleagues did not attend the same workshop; however, many were aware of what I was learning, and they were excited to hear about it and to support implementation in my classroom."

Having the support of her colleagues was an additional layer of both accountability and encouragement for the teacher. This teacher explained she had both a professional community and colleagues whom she shared ideas and practice. She explained, "I discussed the project with many, many people, I read, and I reflected. I also asked for student feedback regularly on what they were doing and what meaning they were making from the experience."

Another common theme that emerged was the importance of teachers asking for student feedback regularly as a new strategy. Previously, the teacher explained she had been very open and receptive to students coming to her with questions or comments about a topic or activity done in class. However, after this professional development, the teacher stated the weeklong workshop emphasized the importance of asking for feedback from the students as the game went on. The game involved assigning roles to students, such as secretary of the United Nations, president of the World Bank, Arms Dealers, Weather Goddess, and the saboteur. Checking in with the teams daily and especially with

the saboteur, which was an anonymous role but created chaos in the game, was critical to the planning and the assessing the social climate of the classroom.

The teacher's role was to maintain the emotional security of the students and the integrity of the game so that students made their own decisions, sometimes in error, and then dealt with the consequences of their actions. Whether the teacher would play the game with next year's students was undecided at this point due to the enormous time commitment, but she felt the activity benefited from becoming part of the community that played the World Peace Game and from everything she learned from having spent the semester participating in the game with students in her classroom.

Another different professional development experience shared by participants revolved around reading a book. The faculty was given a book to read over the summer in preparation for a speaker who was coming to a conference that several schools had gone in together to bring to St Louis. The faculty was given the book to read during the summer when they did not have the pressure of teaching or other duties during the school year. As one kindergarten teacher at the University School explained, "We were asked to read the presenter's book over the summer months and discussed it as a faculty, when we returned to school in the fall."

The entire faculty read the book and discussed it at faculty meetings and in small grade level meetings as well. One teacher explained the importance of all faculty having read the book, "It allowed for a shared schema, experience, and vocabulary. This was invaluable, because it gave us forward momentum and shared goal."

After the presentation and the workshop, the faculty began to implement some of the author's ideas into their own classrooms. One first grade teacher who participated reflected and said:

I re-read the book. I talked with colleagues about how I might implement ideas in the classroom, and what they had tried that was successful. I tried some of the ideas in the classroom. If they were not successful, I asked the students for feedback (where possible) reframed the lesson and tried again.

Another teacher who experienced change through reading a book and hearing the author also spoke about what happened after the initial experience. The second-grade teacher said, "We held each other accountable for implementing the strategy and encouraged one another. Our collaboration was key to our success with students and instruction."

The administration was supportive with the time given for planning and freedom to try new configurations for team teaching. Classroom observations were also built into the experience. A teacher of both second and third grade language arts explained:

 I worked with the Instructional Specialist in the building to create and implement a writing workshop program. We collaborated all school year and team-taught. The students benefited from having two teachers, which provided more time for conferencing and one on one teaching. Observations were done twice a year, I believe. Each teacher had one on one conversations with the presenter after each observation.

Yet, another kind of professional development experience involved a team of teachers taking a course at a nearby university together. The course was about curriculum

design using themes and play motifs. Besides having her colleagues with her in the course, one fifth grade teacher who also was part of a cohort within the class, explained her experience, "I had many opportunities to reflect with colleagues in my cohort I also had the benefit of accountability partnerships to follow through on my implementation plans."

A second and third grade teacher from the University School who also had the PD experience said, "The follow up and accountability for my implementation was essential. I was very intentional and confident in the efficacy of using play motifs as a leverage point for effective curriculum design to engage students fully."

This part of the study was completed with a survey and follow-up interviews either on by telephone or e-mail after the professional development. All of the teachers who participated were very experienced, ranging from three years to 30 years of teaching experience. The average years of experience for the participating teachers was 17 years. Most teachers had taught the same grade level for the majority of their tenure, averaging 10 years at their grade levels.

Of the participants, 80% of the teachers taught in suburban schools, while the other 20% were urban. The same percentage reported free or reduced lunches, with the 20% of urban students, also being in schools with students qualifying for the free or reduced lunches. On a scale of one to five with five signifying the most impact, the teachers rated their experiences as 4 or 5, equally distributing the points. Also, the teachers surveyed again rated equally four and five on how their students behaved or performed differently because of the experience they brought to their class following the professional development.

The common themes and factors rising to the surface from the second smaller survey with a discrete group of experienced, exemplary in their innovation, can be sectioned into percentages of agreements, with time to reflect, time to implement and time to try out what they had learned as being the most important to their growth (see Table 4).

According to respondents, this professional development experience occurred when the researcher began to collect feedback. And, currently, faculty reported they were still implementing and adapting project-based activities in their classrooms in different ways and capacities based upon what they had learned at the professional development. Participants also said they still held discussions in large and small groups about their classrooms and what had worked and in what areas they had struggled. These results are summarized in Table 4.

Table 4

Experienced Teachers Survey Results

Percent of participants	Key Factor
100	Time to Reflect
100	Time built into the schedule to implement
80	Colleague was with the teacher
80	Experience was not at a conference
60	Presenter came to school
60	Had a choice

Note. Responses were from teachers with three or more years of experience.

A survey given to the University School teachers drilled down a little more into what were essential parts of the professional development they participated in. Here are some of the essential qualities that they most valued in Figure 5, including the power of having a colleague to both experience the same new pedagogy or content, but also to have as a sounding board to reflect and to make further plans for implementation.
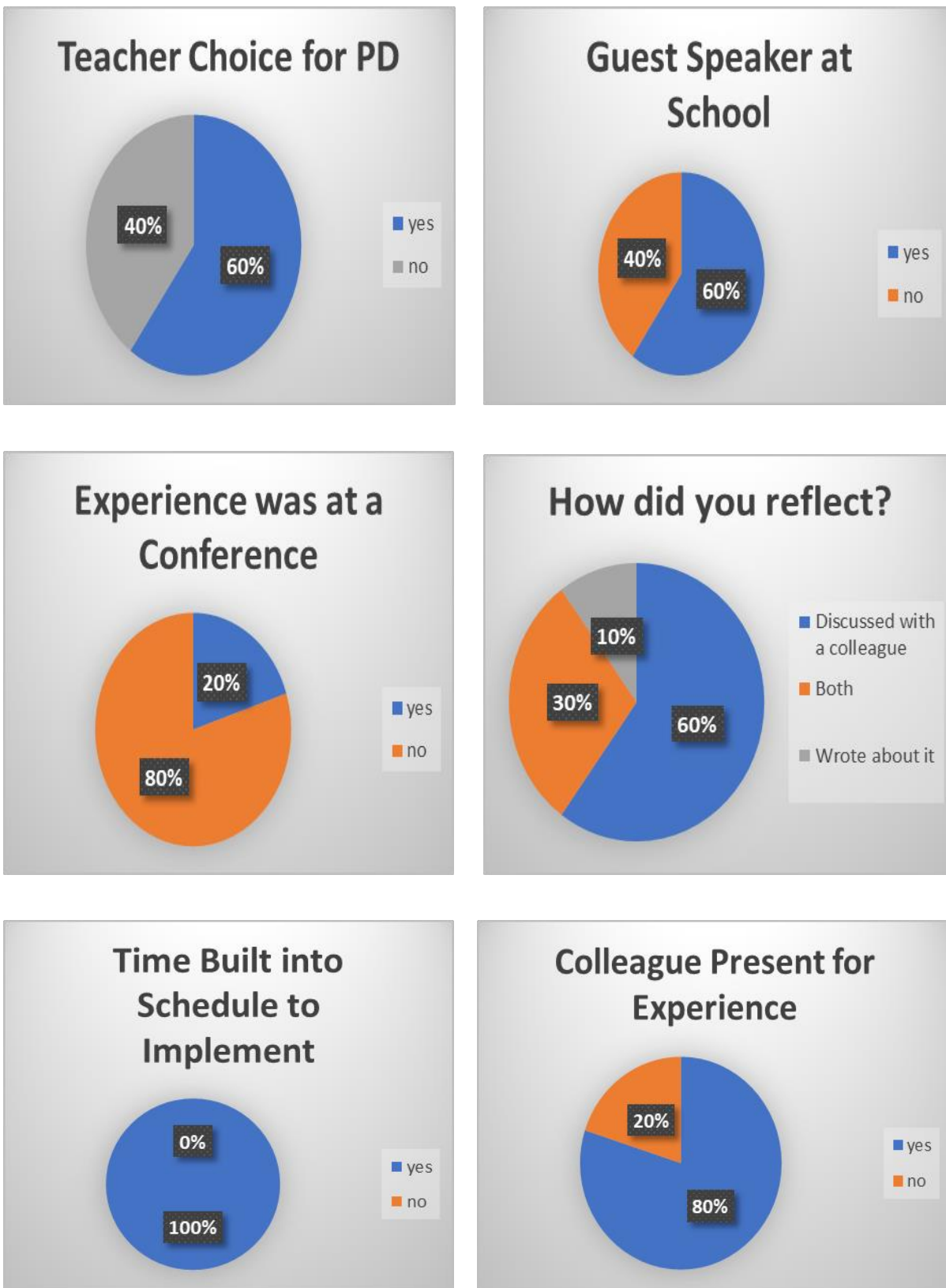
Figure 5. Results from University School teachers on essential professional development practices.

Common themes and factors from interviewing the Experienced Teachers

included: Another way of looking at the results from the survey and interviews were

illustrated in Table 5. Again, this was a more in-depth analysis of the participants'

responses, which also included having support groups and peer observations.

Table 5

Common Themes from Experienced Teachers' Interviews

- Having time built into their daily schedule to try and implement the new program
- Discussing the experience with a colleague before, during and after

  implementation

- Having a support group, online or face-to-face who went through the

  experience

- Observations of and by peers and experts

- Being held accountable

- Being able to ask questions of experts before, during or after implementation

- Discussing the experience with the administrator as part of their growth plan

Note. Data collected from the 2016-2017 School Year by University School teachers'
responses.

Chapter 5: Conclusions and Summary

The driving questions for this research were the following:

- What kind of experiences do teachers identify that they need to become the responsive, innovative and creative members of an educational community?

- How can professional development reflect the variation in backgrounds of teachers in order for all teachers to reach their potential as innovative, creative educators?

- What professional learning experiences do teachers who have been in the professional 3 years or more identify as being essential in their growth?

While the research showed there was a diverse set of experiences that led to growth, the driving questions did net some common themes. For the teachers tasked with learning a new program for the first time and changing their current way of teaching, they identified the need to first become familiar with and understand the new content, reviewing the program with colleagues and have the time to go through the curriculum and lessons with content experts as being most factors in being successful. Professional development that helped the teachers in learning how they would implement the new program, doing more hands-on science than they were previously using and feeling prepared to teach the program were identified as key experiences.

One of the first things that became obvious was the difference in responses between who were first-year and three-or-more years experienced teacher. This phenomenon has been well-documented in several sources. First, Huberman (1993) discussed this phenomenon. The researcher wrote:

The hypothesis is fairly obvious: Teachers have different aims and different dilemmas at various moments in their professional cycle, and their desires to reach out for more information, knowledge, expertise and technical competence will vary accordingly … A core assumption here is that there will be commonalities among teachers in the sequencing of their professional lives and that one particular form of professional development may be appropriate to these shared sequences… (p. #)
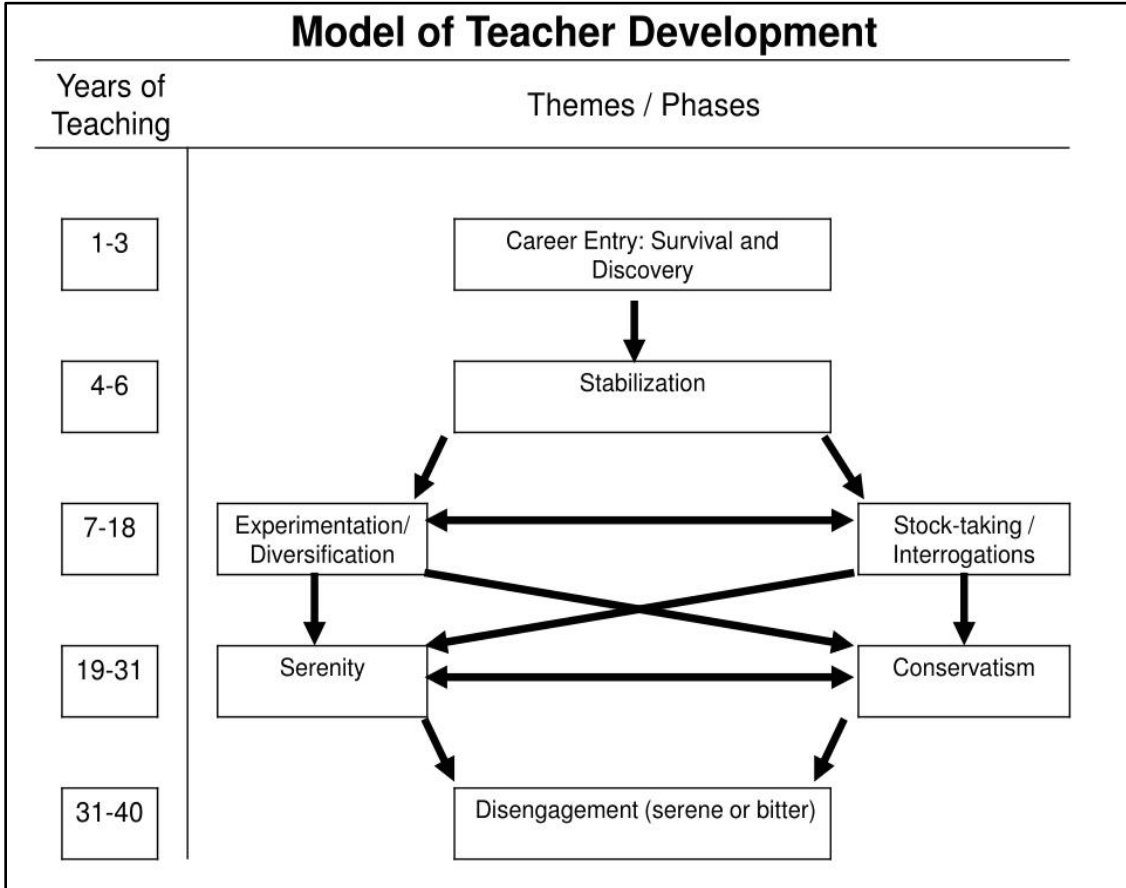

Figure 6. Hubermen (1993)

As shown in Figure 6, professional development that helps with Survival and Discovery is necessary for most teachers new to the program. This was also shown in the survey results given to the teachers for this study.

Developing teacher efficacy was critical to the teacher implementing a new program. How confident and competent she feels will determine the extent to which she will actually do the lessons with the students and complete the unit. Mahlangu addresses the phenomena as such:

"They need to have greater teaching efficacy. Teaching efficacy is a teacher's judgment of his or her capacity to cope with the teaching situation in ways that bring about desired outcomes and ought to revolve around teachers' confidence in being able to implement instructional strategies that could boost students' learning, engagement, and desired behavior." (Mahlangu 2018, p2)

The need for teacher efficacy was also a corner stone in making sure that professional development was an integral part of the program. The outside evaluator for the program, Dr. Katherine Beyer, commented in one of her reports:

"Even teachers who feel good about teaching science need help keeping it in the daily classroom schedule given the climate of many of today's urban elementary schools. For the teacher who lacks experience, interest and confidence in teaching science – their students are not likely to find science an exciting and engaging experience – if they find much science at all!" (Beyer 2012)

"Teachers want professional development learning opportunities that are interactive, engaging, and relevant for their students. Teachers want professional development learning opportunities that show them a more practical way to

deliver content. Professional development is more successful when it is explicitly tied to classroom lessons (Desimone& Garet, 2015). Classroom lessons must be student-focused and driven by meaningful pedagogy interwoven with content" (Matherson & Windle, 2017).

Changing how teachers think about teaching is particularly important for science. Studies that looked specifically at science curriculum found the need to change the teachers' mindset showed that need.

 "Following European initiatives, the Estonian Government (2011) implemented a new competence-based (science) curriculum, in which Estonian teachers were confronted with the realization that the new curriculum required a different approach to teaching. Osborne (2007) pointed out "Changing the curriculum was one thing, asking teachers to change their pedagogy to meet the demands of such a curriculum was another" (p.181). To support teacher change, much research drew attention to the importance self-efficacy played in developing the ability of a teacher to function effectively in the classroom" (Bandura, 1994; Woolfolk Hoy & Davis, 2006).

Developing the self-efficacy for the first-year teacher is a combination of factors-making sure they understand the scientific concepts, how to use the materials effectively, and becoming confident in the flow of inquiry and investigative science instead of giving the students the answers to their questions. Another researcher on this topic speaks to the importance of the professional development experience being a model for the kind of pedagogy to be used in the classroom.

"Another important point in teacher training, McLaren says, is to teach the teachers using the methods you want them to use in the classroom. This is referred to as

"modeling the model" by the academy's vice-president for strategic initiatives, Deborah Hirsch. "In order to teach differently, you need to learn differently," she says. McLaren agrees and describes an example from a professional-development workshop. "The teachers have to be put in the position where they are playing the role of the student," he says (Hatch, 2018).

Collaborative learning is at the core of communities of practice involving co-construction of meaning and mutual relationships through a shared enterprise (John-Steiner, 2000; Wegner, 1998). Accordingly, collaborative practices have been defined as central to professional development because they further opportunities for teachers to establish networks of relationships through which they may reflectively share their practice, revisit beliefs on teaching and learning, and co-construct knowledge (Achinstein, 2002; Chan & Pang, 2006; Clement & Vandenberghe, 2000; Hargreaves & Dawe, 1990; Little, 1987; Musanti & Pence, 2010).

This data is consistent with the literature about what more experienced teachers take away from a professional learning experience. In Huberman's diagram of the stages of teacher career development, teachers with 1-3 years' experience look for Survival and Discovery assistance; the more experienced teacher is looking to Stabilizing, Experimentation and Diversification strategies. (Huberman, 1993)

In this model of one three-hour workshop on a new program, the expectation is for the teachers to implement it as scripted in PD, with fidelity. With time limited for meaningful discussion, between the teaching peer groups, instructional coaches or administration given to examine the impact on their particular students, or teaching schedules or integration with the teachers' understandings previous experiences with the

topic and concepts, the onus was on the teachers to continue discussion and planning on their own time, outside of the workshop. The lack of time designated by administrators for follow up often lead to teachers either not implementing the program, or reading it as a script. By doing so, creativity, innovation, and response to student input within the science experience was left to the individual teacher.

While both of these comments showed frustration with aspects of the curriculum and limitations of the workshop, they also demonstrated the beginning awareness of the need to develop the kinds of skills students need for today, as shown through literature (Wagner & Dintersmith, 2015)

1. Learning How to Learn

2. Communicating Effectively

3. Collaborating Collectively and Effectively

4. Creative Problem Solving

5. Managing Failure

Darling-Hammond and Mahlangu addressed this in their studies about effective professional development experiences; there should be intensive, ongoing, and connected to practice and opportunities to build strong working relationships among teachers, and provide time to collaborate. (Darling Hammond, 2017) (Mahlango, 2018)

Recommendations

In the early chapters of this thesis, the researcher asserted the need for teacher professional development to reflect the new face of education today. Preparing students to be successful in the age of innovation requires teacher development change. Much of the findings in this study corroborated the literature written about effective professional

development for growing creative innovative teachers. This analogy was discussed in

Noonan's (2016) study on teacher learning:

> Someone told me to think of it in fractals, teaching and learning can seem similarly
>
> nested in that the experience of teachers' learning cannot easily be separated from
>
> the way they were taught and the way they themselves teach. Similarly, all
>
> teachers are learners and all learners are (in some sense) teachers, each with
>
> discrete but interconnected experiences of teaching and learning that extend
>
> infinitely in all directions. While learners may be motivated by a shared set of
>
> basic needs and governed by a shared set of policy objectives, their identities and
>
> problems of practice are stubbornly unique, which means that their subjective
>
> experiences of learning are similarly diverse. (p. 138)

For all the teachers, having the chance to reflect and discuss implementing change

was a key factor in their growth. As collaborated by the literature, the need to reflect and

discuss regularly with colleagues and other people who are implementing the new

program is vital to the sustainability of change.

Implications for Schools

The role of the administrators within the school or district is directly tied to

professional development. They are the ones that are responsible for the disbursement of

funds allocated to professional development, often the ones that choose the workshops,

and decide how the teachers' time will be dedicated to growing professionally. "District

leaders need to empower teachers more fully by listening to the needs and desires of their

professionals. Teachers need to speak up and not be shy in voicing opinions. Both

teachers and district leaders need to put more thought into professional learning needs.

Learning needs are different for every teacher, and professional development should meet the needs of all teachers." (Matherson & Windle, 2017)

The researcher spent 13 years delivering professional development to hundreds of teachers and the last year of this research as a classroom teacher on the receiving end of professional development. Since the researcher began this study, there have been many papers and discussions about newer trends in professional development published in educational journals and magazines. It is the researcher's hope that the analysis of this survey shows the complexity of attempting to influence a group of teachers to adopt a new way of teaching and thinking.

In effective PD programs, the practices of generating feedback and supporting reflection often include opportunities to share both positive and constructive reactions to authentic instances of teacher practice, such as lesson plans, demonstration lessons, or videos of instruction. These activities are frequently undertaken in the context of a coaching session or a group workshop facilitated by an expert. In a few cases, the feedback was shared among teachers. In each of these settings, effective PD programs leveraged feedback and opportunities for reflection to create richer environments for teacher learning. (Darling-Hammond, L., Hyler, M. E., Gardner, M. 2017)
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Schon (1983) introduced the terms reflection-in-action, referring to the ability to reflect or think about what was occurring while it occurred and reflection-on-action, to refer to reflecting or thinking about what had already occurred. This was seen as a purposeful revisiting of the past, often to consider critical events. Later, Killion and Todnem (1991) added reflection-for-action as the process of reflecting on past actions and decisions seen as a means to guide future practices. Thompson and Pascal (2012) claimed reflection-for-action was the process of planning, by drawing on the experience and taking context into account. (Valdmann, Holbrook, & Rannikmae, 2017). The teacher could discuss problems or events with others who had or were experiencing the same thing and brainstorm ideas for changes or further planning.

Reflection is seen as an important component of professional learning and hence teacher development. John Dewey defined reflection as the "active, persistent, and careful consideration of any belief, or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends" (Dewey, 1933, p. 2).

Another definition of reflection can be seen as a metacognitive strategy involving an active exploration of experiences to gain new, or greater, understanding. In addition, several researchers highlight the importance of teacher reflection when experimenting on

new teaching approaches in professional development, which aim to develop teachers'

beliefs and practices (Kaasila, Hannula, Laine, & Pehkonen, 2008; Kaasila & Lauriala,

2010; Clarke & Hollingsworth, 2002; Shulman, 1987).

 Final Thoughts

Another consideration in this study included the hope that the data from this

research could be translated into strategies that could help guide districts and

administrators to the kinds of professional development, the teachers need to teach

students in this new age of innovation, to adopt a high-quality student-centered learning

strategies that are personalized and flexible (Darling-Hammond, 2017).

The most significant realization from this study for the researcher was that

implementation of exemplary innovative professional development does not have to add

any additional cost to the district. What it would require is for districts to shift their

thinking about professional development and start using time, money and their personnel

in different ways. Superintendents, principals, curriculum coordinators, counselors, and

instructional specialists would have to work as a team <u>with</u> the teachers to form

personalized professional development plans that include follow-up with teachers.

Administrators would have to trust their teachers and building personnel to make their

own choices try something possibly have it fail and learn from their mistakes in order to

improve their next attempt.

Also, there are master teachers in every school that have the expertise to offer that

the school could utilize. Arraigning planning time to include peer observations within the

school or district could be made possible. Pairing new teachers with exemplary teachers

is another option. Helping new teachers feel secure in the content to be taught and the

sequence, timing and materials need for the activities supporting the lessons is the role of professional development for those teachers. Encouraging passion, interests and teacher research topics will help teachers experienced and comfortable with the content and lessons of a curriculum will help those teachers innovate and create in alignment with their particular class.

As the world has changed from the Industrial Age to the Information Age and now into the Innovation Age, the dynamics of power structures have changed as well (Chang et al., 2017). Leaders who use power effectively care about people and avoid dominating them (Dewey, 1938). They depend on deftness, rather than flexing their muscles (Chang et al., 2017). They choose respect over friendship and want truth rather than deception. McClelland (1970) claimed the positive or socialized face of power emphasizes a concern for group goals, finds the goals which move people, helps the group formulate them, takes the initiative in providing members of the group the means to achieve them, and gives group members a sense of support, strength, and competence needed to work hard toward achieving them (Conclaves, 2013).

Collaboration, being part of a team, decisions by consensus are becoming more the norm (McClelland, 1970). The traditional top-down approach to professional development for teachers chosen by administrators removed from the classroom is shifting to shared power and responsibility to best serve students and teachers (Berg et al., 2014). Involving all the stakeholders in the professional development process can only strengthen the teachers' abilities to help educate today's students to be ready to take on the challenges of the 21st century.

References

Aldahmash, A. H. (2019, April). Research trends in in-service science teacher professional development from 2012 to 2016. *International Journal of Instruction, 12*(2), 1470.

Berg, J., Carver, C., & Mangin, M. (2014). Teacher leader model standards: Implications for preparation, policy, and practice. *Journal of Research on Leadership Education, 9*(2), 195–217.

Beyer, K. M. (2007-2012). MySci and MySci Magnified – Comparing Teacher Experiences Across MySci Program Structures.

Breunig, M. (2005). Turning experiential education and critical pedagogy theory into Praxis. *Journal of Experiential Education, 28*(2), 106-122.

Brigid, B., & Darling-Hammond, L. (2008). *Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning.* San Rafael, CA: George Lucas Educational Foundation.

Chang, D., Chen, S., & Chou, W. C. (2017). Investigating the major effect of principal's change leadership on school teachers' professional development. *IAFOR Journal of Education, 5*(3), 140.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Darling-Hammond, L, Hyler, M. E., & Gardner, M. (2017, June). *Effective teacher professional Development.* Learning Policy Institute.

Dee, T. S., & Jacob, B. A. (2010). The impact of No Child Left Behind. *Brookings Papers on Economic Activity*. University of Michigan, 149-207.

Dewey, J. (1938). *Experience and education*. New York, NY: Macmillan

Publishing.

Dewey, J. (1944). *Democracy and education*. New York, NY: Macmillan Company.

Edwards, C., Gandini, L., & Forman, G. (2011). *The hundred languages of children.* Santa

Barbara, CA: ABC-CLIO.

Fröbel, F. 1782-1852. (1899). *Friedrich Froebel's education by development: The*

second part of the pedagogics of the kindergarten. New York, NY: Routledge Publishing.

Goncalves, M. (2013, April). Leadership styles: The power to influence others. *Journal of*

Business and Social Science, 4(4), 1-3.

Graham, L. (2007) (Re)Visioning the centre: Education reform and the 'ideal' citizen of the

future. *Educational Philosophy and Theory. 39*, 197 - 215.

Hanich, L. B. (2009). Using student interviews to understand theories of motivation. *Teaching*

Educational Psychology, 3(3), 1-5.

Hatch, J. (2018). Building better science teachers: The latest training techniques emphasize

classroom practice and design thinking. *International Journal of STEM Education*, 562.

Haviland, M. (2012) Encouraging teachers to teach creativity. *Powerful Learning Practice*.

Retrieved from https://plpnetwork.com/2012/06/05/encouraging-teachers-teach-

creativity/.

Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M. (2013). *Studio thinking 2: The real*

benefits of visual arts education, (2nd ed.). New York City, NY: Teachers College Press.

Horn, M. B., & Evans, M. (2013). *New schools and innovative delivery*.

Mahlangu, V. P. (2018). *Reimagining new approaches in teacher professional development*.

Retrieved from http://dx.doi.org/10.5772/intechopen.81120.

Manzar-Abbass, S. S., Ahmed, S., & Malik, N. A. (2017). Primary school teachers' perceptions

about mentors' role in their professional development. *New Horizons, 11*(2), 47-59.

Matherson, L., & Windle, T. M. (2017). What do teachers want from their professional development? Four emerging themes. *Delta Kappa Gamma Bulletin, 83*(3), 28-32.

Maurrasse, D. J. (2002). Assessing progress in the field nonprofit and voluntary sector. *Higher Education and Community Partnerships, 31*(1), 131-139.

Meijer, M. J., Kuijpers, M., Boei, F., Vrieling, E., & Geijsel, F. (2016). *Professional development of teacher-educators towards transformative learning.* Professional Development in Education.

Montessori, M. 1870-1952. (2004) *The Montessori Method: The origins of an educational innovation: including an abridged and annotated edition of Maria Montessori's The Montessori Method.* Lanham, MD: Rowman & Littlefield Publishers.

Musanti, S. I., & Pence, L. P. (2010) Collaboration and teacher development: Unpacking resistance, constructing knowledge, and navigating identities. *Teacher Quarterly, 37*(1), 73-89.

National Governors Association Center for Best Practices. (2010). *Rural prosperity through the arts and creative sector.* Council of Chief State School Officers, Washington D.C. Retrieved from https://www.nga.org/ruralarts/

NGSS Lead States. (2013). *Next generation science standards: For states, by states.* Washington, DC: The National Academies Press.

Penuel, W. R. (2016). *Scaling and sustaining equitable change in educational systems.* Boulder, CO: University of Colorado Research Projects.

Richard, F. D., Battistoni, R. M., Rost-Banik, C., Netz, R., & Zakoske, C. (2015, Spring). Reflective practice that persists: Connections between reflection in service-learning programs and in current life. *Michigan Journal of Community Service Learning*, 49-63.

Rotermund, S., DeRoche, J., & Ottem, R. (2017). *Teacher professional development: Stats in brief.* U.S. Department of Education.

Sawyer, Keith R. (2018), Teaching and learning how to create in schools of art and design. *Journal of Learning Sciences, 27*, 137-181.

Sharifzyanova, K. S., Shtreter, J. N., & Nauryzbayeva, R. N. (2015). Structural-functional model of designing individual educational path of teacher's professional development in conditions of information educational environment. *International Journal of Environmental & Science Education, 10*(4), 523-532.

Shear, L. (2010, March). *The Microsoft Innovative Schools Program: Year 2 Evaluation Report.* ITL Research.

Smith, J., & Noble, H. (2014). Bias in research. *Evidence-Based Nursing*, *17*(4), 100-101. https://doi.org/10.1136/eb-2014-101946.

Sternburg, R. (2009). Wisdom, intelligence, and creativity synthesized: A new model for liberal education. *Liberal Education, 95*(4).

TNPT. (2015). Confronting the hard truth about our quest for teacher development. *The Mirage*. Retrieved from https://tntp.org/publications/view/the-mirage-confronting-the-truth-about-our-quest-for-teacher-development.

Tuli, F. (2017). Teachers professional development in schools: Reflection on the move to create a culture of continuous improvement. *Journal of Teacher Education and Educators, 6*(3), 275-296.

Tyunnikov, Y. S. (2016). Interrelation of evaluation and self-evaluation in the diagnostic

    procedures to assess teachers' readiness for innovation, training, and education in

    professional psychology. *European Journal of Contemporary Education, 9*(2), 141-159.

U.S. Department of Education. (2002). No Child Left Behind (NCLB).

Valdmann, A., Holbrook, J., & Rannikmae, M. (2017). Determining the effectiveness of a

    design–based, continuous professional development programme for science teachers,

    Journal of Baltic Science Education, 16(4), 576-591.

Wagner, T., & Dintersmith, T. (2015). *Most likely to succeed: Preparing our kids for the*

    Innovation Era. New York, NY: Scribner.

Walter, C., & Briggs, J. (2012). *What professional development makes the most difference to*

    teachers? Oxford: Oxford University Press.

Definition of Terms

Voice- "In education, the term voice refers to the values, opinions, beliefs, perspectives, and cultural backgrounds of the people in a district, school, or school community—especially students, teachers, parents, and local citizens—as well as the degree to which those values, opinions, beliefs, and perspectives are considered, included, listened to, and acted upon when important decisions are being made in a district or school. The most common variations are student voice, teacher voice, and parent voice." (Great Schools, 2014).

School Culture- "The term school culture generally refers to the beliefs, perceptions, relationships, attitudes, and written and unwritten rules that shape and influence every aspect of how a school functions, but the term also encompasses more concrete issues such as the physical and emotional safety of students, the orderliness of classrooms and public spaces, or the degree to which a school embraces and celebrates racial, ethnic, linguistic, or cultural diversity." (Great Schools, 2014).

Differentiated Instruction "A teaching practice that seeks to meet students' varied learning needs by offering several learning experiences that can be geared to different individuals, depending on their abilities, interests and learning styles. Activities and materials may vary by the difficulty to challenge students at different readiness levels, by topic in response to students' interests, and by their preferred ways of learning or expressing

themselves. Typically, differentiated instruction offers two to four different learning experiences for a class" (Great Schools, 2014).

Personalized Learning "refers to a diverse variety of educational programs, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students" (Great Schools, 2014).

Professional Development (PD)/Professional Learning (PL) "may be used in reference to a wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness" (Great Schools, 2014).

Appendix A

A. The University of Missouri - St. Louis Guidelines for Application for

Exemption from Review by the Institutional Review Board

Federal and University Regulations require all research involving human

subjects to be approved by the Institutional Review Board (IRB). The only

exceptions are those categories of research that are defined as exempt

from review by Federal Regulations. At the University of Missouri, the

Office of Research Administration staff and the Chair of the IRB work

together to determine whether research is exempt as specified in the

Federal Regulations.

Exempt research includes:

Research conducted in ESTABLISHED or COMMONLY

ACCEPTED EDUCATIONAL SETTINGS, involving normal

educational practices, such as:

i.   research on regular and special education instructional

strategies, or

ii.   research on the effectiveness of or the comparison

among instructional techniques, curricula, or classroom

management methods.

Research involving the use of EDUCATIONAL TESTS

(cognitive, diagnostic, aptitude, or achievement), SURVEY

procedures, INTERVIEW procedures, or OBSERVATION OF

PUBLIC BEHAVIOR, unless:

iii. information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; AND

iv. any disclosure of the human subjects' responses outside the research reasonably could place the subjects at risk of criminal or civil liability or could be damaging to the subjects' financial standing, employability, or reputation.

v. Research involving the use of EDUCATIONAL TESTS (cognitive, diagnostic, aptitude, or achievement), SURVEY procedures, INTERVIEW procedures, or OBSERVATION OF PUBLIC BEHAVIOR, that is NOT exempt under (b) above if:

vi. the human subjects are elected or appointed public officials or candidates for public office; or

vii. federal status requires, without exception, that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

b. Research involving the collection or study of EXISTING DATA DOCUMENTS, RECORDS, PATHOLOGICAL SPECIMENS, or DIAGNOSTIC SPECIMENS, if these sources are publicly available or if the information is recorded by the

investigator in such a manner that subjects cannot be identified directly or through identifiers linked to the subjects.

c. RESEARCH and DEMONSTRATION PROJECTS which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine:

    i. public benefit or service programs;

    ii. procedures for obtaining benefits or services under those programs;

    iii. possible changes in, or alternatives to, those programs or procedures; or

    iv. possible changes in methods or levels of payment for benefits or services under those programs.

d. TASTE and FOOD QUALITY EVALUATION and CONSUMER ACCEPTANCE studies:

    i. if wholesome foods without additives are consumed, or

    ii. if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety Inspection Services of the U.S. Department of Agriculture.

If subjects are under age 18, SURVEY or INTERVIEW

PROCEDURES (#2 and #3 above) are NOT eligible for

exemption.

If subjects are under age 18, research involving

OBSERVATION OF PUBLIC BEHAVIOR (#2 and #3 above)

is eligible for exemption ONLY when the investigator does not

participate in or manipulate the activities being observed.

Appendix B

The University of Missouri - St. Louis

Application for Exemption from Review by the Institutional

Review Board

1. Using categories described in item II(a) of the Guidelines,

list the category of research activity that you believe applies to

your research. Exempt

2. Briefly describe the nature of the involvement of the human

subjects (personal interview, mailed questionnaire, telephone

questionnaire, observation, etc.) and the reason you believe this

project qualifies for exemption from review.

I will be using existing data documents and existing records to

identify common themes concerning the relationship between

teacher professional development and their mindset growth

towards innovation, creativity, and social responsiveness. I will

then select several teachers to further interview by survey,

interviews, and observation to further identify anecdotal

evidence.

3. Are the data recorded in such a manner that subjects can be

identified by a name or code? _Yes__

If yes: a) who has access to the data, and how is it being stored?

The researcher has access to the data, and it is stored on her

laptop.

b)If you are using an assessment tool (e.g., the Beck

Depression Inventory), what is your procedure for referring the

subject for follow-up if his/her scores are significant?

Not using an assessment tool.

c)Will the list of names and codes be destroyed at the end of

the study? Yes

4.Age of subjects: Adults (persons age 18 and older)Yes X___   No____

Minors (persons under age 18)   Yes ____   No____

5.If your project uses a questionnaire or structured interview,

attach a copy of the questionnaire or interview questions to this

form.   Included.

If a consent form will be used, attach a copy to the protocol.

Included.

 Submit an original and 1 copy of this application, with

attachments (number all pages), to the Office of Research

Administration, 341 Woods Hall.

Appendix C

Division of Education

One University Blvd.

St. Louis, Missouri 63121-4499

Informed Consent for Participation in Research

Activities

Essential Experiences Teachers Identify as Supporting Their

Growth in Innovation, Creativity and Social Responsiveness

Participant _____

HSC Approval Number _____

Principal Investigator _____Skyler

Wiseman_____   PI's Phone

Number   _____314-393-8657_____

1.   You are invited to participate in a research study

conducted by Skyler Wiseman, Phyllis Balcerzak, and Ralph

Cordova. The purpose of this research is find common

experiences that teachers identify as being most significant to

their growth as innovative, creative and/or socially responsive

teachers, whether it was formal professional development or some other event, or series of events.

2. a) your participation will involve:

➢ Completing the written survey

➢ Being willing to have a follow-up interview in person or over the phone.

Approximately 20 teachers may be involved in this part of the research.

b) The amount of time involved in your participation will be the length of time to complete the survey and whatever time is needed for the in person interview.

3. There are no anticipated risks associated with this research.

4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about beneficial professional development opportunities, and may help students reap the benefit of innovative professional development practices.

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. If you want to withdraw from the study, you can contact me at 314-393-8657, or skylerb@wustl.edu. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. By agreeing to participate, you understand and agree that your data may be shared with other researchers and educators in the form of presentations and/or publications. In all cases, your identity will not be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. In addition, all data will be stored on a password-protected computer and/or in a locked office.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Skyler Wiseman, 314-393-8657, or Phyllis Balcerzak, balcerzakph@umsl.edu

You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration, at 516-5897.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

_____   _____

Participant's Signature   Participant's Printed Name
Date

Appendix D

Identifying Key Experiences for Growth Survey Questions for Teachers

You have been chosen to complete this survey because your work as a classroom teacher has been identified as exemplary, creative and responsive to your students. Think about the most significant experiences you have had over your teaching career that have had the most influence on you. Describe an example of an opportunity in which you began to think differently, encouraged your creativity, or ability to innovate. Use these questions to help specify:

1. Did the key experience involve a guest speaker being brought in to the

school? Or was it a colleague?

        a. Guest speaker

        b. Colleague

        Other:

2. Was the experience a session at a conference?

        Yes

        No

3. Did you have a choice in participating in that professional development experience?

        Yes

        No

4. Did you have an opportunity to reflect on the experience?

        Yes

        No

        Other:

5. How did you reflect; write about it, discuss it with a colleague, or friend?

Write about it

Discussed it with a colleague

Discussed it with a friend

Other:

6. Was time built in to your schedule to try out some of the ideas from the

experience?

Yes   No

7. Were your colleagues with you during professional development?

Yes   No

8. How did having a colleague experience the same workshop or event affect your follow

through?

9. To what degree was there any follow-up, or continuation of the ideas presented during the

experience?

10. How did/does that powerful experience you described impact your teaching?

Totally changed my teaching

11. How do/did your students behave or perform differently as a result of the experience you

had?   No change

12. What steps did you take to make what you learned through the experience relevant to your

students and classroom?

13. What grade are you currently teaching?

K-1st grade   2nd -3rd grade   4th-5th grade

14. How many years have you taught at that grade level or subject?

15. How many years have you been teaching over all?

16. Would you describe your school setting as urban, suburban or rural?

        Urban   Suburban   Rural

17. Do the majority of your students receive free or reduced lunches?

        Yes   No   Maybe

Figures

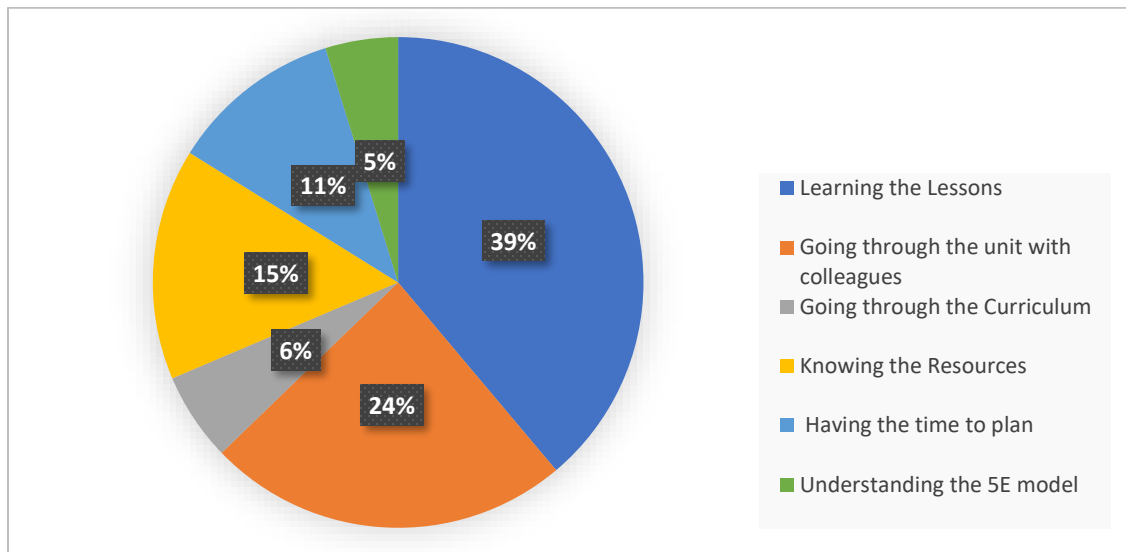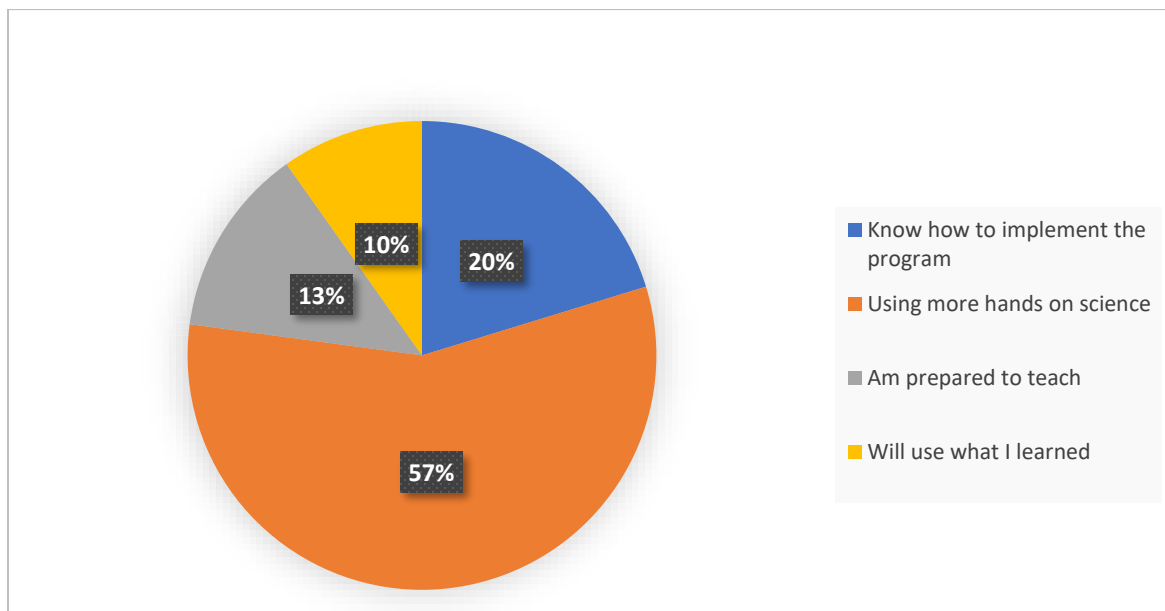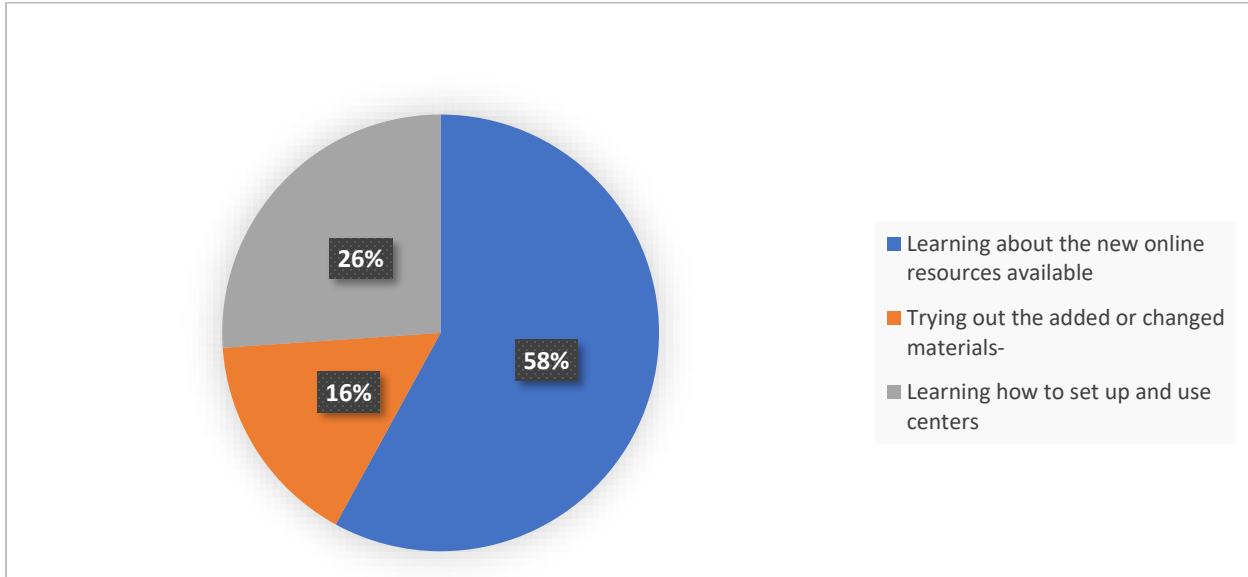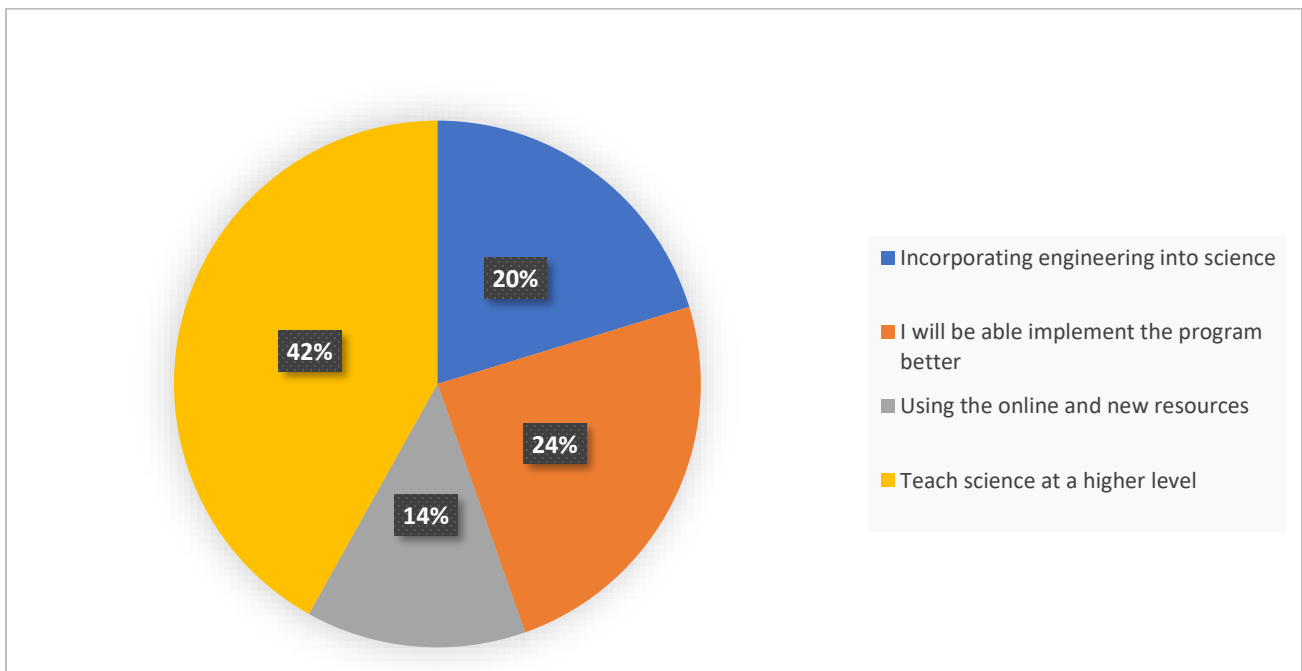Figure 1—First-year Teachers response to What was helpful in today's workshop?
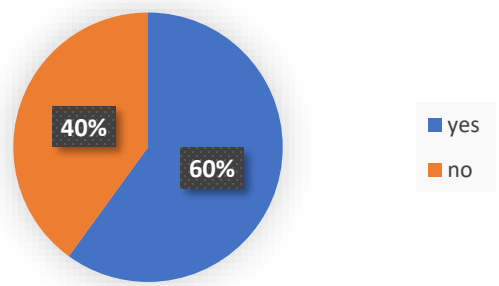

Figure 2—How will PD affect your classroom practice?

Experienced Teachers Responses to A Survey Identifying Transformative Professional
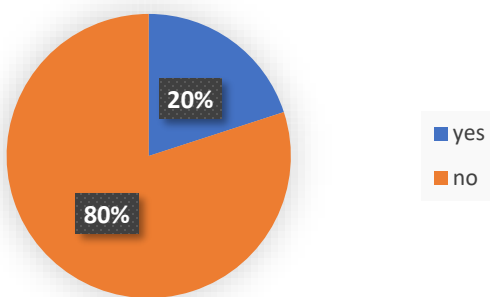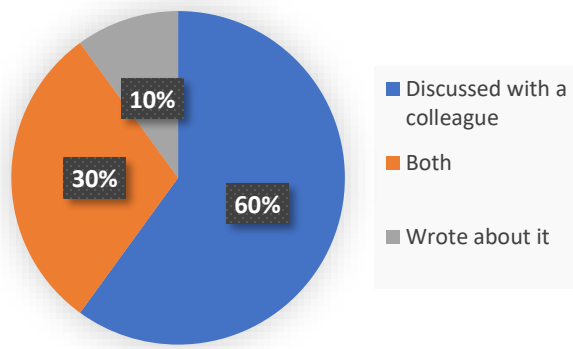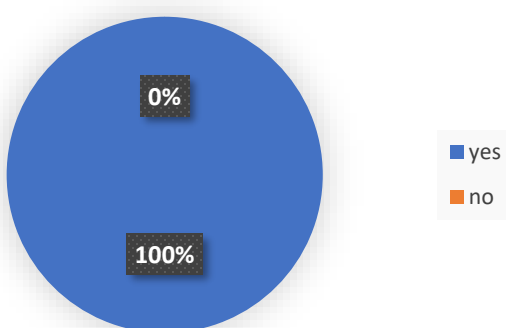
Development Experiences

Teacher Choice for PD

40%

60%

yes

no
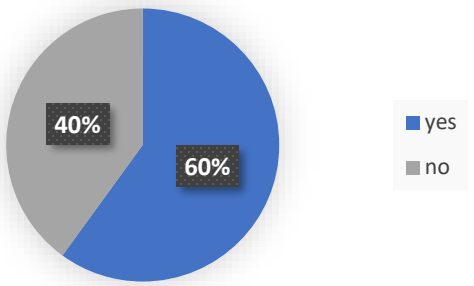
Guest Speaker at School

40%

60%

yes

no

Experience was at a Conference

20%

80%

yes

no

How did you reflect?

10%

30%

60%

Discussed with a colleague

Both

Wrote about it

Time Built into Schedule to Implement

0%

100%

yes

no

Colleague Present for Experience

20%

80%

yes

no
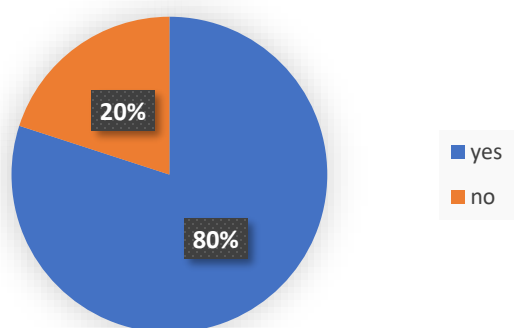
Tables

Table 1

Research Factors	Specific Questions	Data	Analysis

Teacher Capability/Confidence	8. What was one thing you found helpful about today's workshop?
	
	10. How will today's PD affect your classroom practice?
		Big Survey (N=1300)	N=1300
			
			  c. (0-3 years experience)
			
			  d. (3 or more years experience)

Meaningful PD and Adaptation to Classroom	10. How will today's PD affect your classroom practice?	Big Survey (N=1300)	N=1300
			
			  b. (0-3 years experience)
			
			  b. (3 or more years experience)

Research Factors

Table 2

Relationship Between Gender of Manager of Anxiety in Preparation of Ask

Gender of Manager	Total	Little Anxiety	Moderately anxious	Neutral	No Anxiety	Very anxious
Male	71.4%	100.0%	50.0%	100.0%	50.0%	66.7%
Female	28.6%	0.0%	50.0%	0.0%	50.0%	33.3%
Non-binary	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unsure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note. Question Number 17 on the survey asked participants the following: "Please rate your experience while asking for a raise and anxiety in preparation of the ask."

Table 3

Innovative Teacher Survey

1.What factors do you identify as being crucial to your development as a capable, creative, innovative teacher?
2. Was having a choice during PD important? How?
3. What kind of PD do you remember as encouraging your growth?
4. Was there a guest speaker or conference that sparked your thinking?
5. Would or did being given time to reflect, or a discussion with colleagues affect your growth?
6. Was it a combination of some of the above?
7. Are you new to teaching (one through three years)?
8. Do you work in an urban or suburban school?
9. What role does school culture do you identify as critical to your growth?
10. How can those events be replicated to help other teachers?

Note. These questions were administered in 2019.

Table 4— Experienced Teacher Survey Results

Percent of participants	Key Factor
100	Time to Reflect
100	

	Time built into the schedule to implement
80	Colleague was with the teacher
80	Experience was not at a conference
60	Presenter came to school
60	Had a choice

Table 5— Experienced Teachers Interviews

Having time built into their daily schedule to try and implement the new program
Discussing the experience with a colleague before, during and after implementation
Having a support group, online or face-to-face who went through the experience
Observations of and by peers and experts
Being held accountable
Being able to ask questions of experts before, during or after implementation
Discussing the experience with the administrator as part of their growth plan

EXAMPLES OF RECENT EXEMPLARY PD IN ST LOUIS REGION

The researcher looked for and found two new examples of exemplary, high-quality professional development being offered locally late in her research. The first is a brand-new approach a local school district is trying this year, offering a smorgasbord of opportunities for their teachers. The used their professional development money to implement their strategic priorities for their district.

Their priorities are aligned with Walter and Brigs findings on successful professional development that include concrete and classroom-based work, involves teachers in the choice of areas to develop and activities to undertake is supported by effective school leadership and enables teachers to work collaboratively with peers. (Walter and Briggs, 2012).

> PD Plan Development
>
> District leaders, building leaders, and teacher leaders review and analyze student data, Instructional Learning Walks data, and PD surveys to identify goals for the school year, and specific professional development needs that will support those goals. The building PDC and District PDC collaborate to create the Professional Development Plan. Effectiveness of the plan is monitored throughout the school year in order to ensure high-quality PD is provided and is positively impacting students.

(College City School District, 2019)

Some examples of the offerings for professional development that reflect research based forward thinking:

Teaching with the Brain in Mind
~Eric Jensen~
(Audience: K-12)
When: June 17
Commitment: Attend the session and present the seven most critical factors that enhance student achievement and research, according to Jensen.
Stipend: Registration and $100

Problem-Based Learning:

Buck Institute Training

When: June 3-5

Commitment: Attend all days, implement, document and share at least 2 PBL experiences

in your classroom 2019-2020

Stipend: Registration and $100/day

Trauma-Informed Classroom

When: June 20, 12:00-3:00 PM - 3 hours

Stipend: $50

Restorative Circles

When: June 27, 12:00-3:00 PM - 3 hours

Stipend: $50

During New Teacher Institute, July 29- August 2, sessions will be open to all focused on:

- First Quarter Curriculum Deep Dives (all grades)

- Paideia (6-12 ELA and SS)

- 5E Inquiry Model (PK-12 Science)

- Guided Reading (K-8 ELA)

- TI-NSpire (6-12 Math)

- ConnectEd (6th Math/Science)

This approach to professional development is exemplary in several ways, and definitely worth watching it unfold in the future. New teacher differentiation, research based, combinations of bringing in experts and using teacher talent, extended follow-up through the year are strategies with the potential for great growth for the district.

Another local new effort, ConnectEd Learning, in helping schools with professional development is a non-profit online and place-based organization offering professional development for teachers, as well as an online community, coaches, books, and resources. From their website:

ConnectEd Learning is a non-profit organization focused on supporting educators who desire to learn more, are willing to take risks, and think differently about the problems we face in education today.

ConnectEd Learning's portfolio of events and programs include:
The nation's largest Edcamp event, Edcamp St. Louis, and specialized Edcamp events, including Edcamp Leadership, Spedcamp (focused on special education), Chromecamp (focused on Google Chrome applications for the classroom) and Early Childhood Edcamp in partnership with PBS

- A monthly newsletter with 4,000+ subscribers and growing
- Monthly learning opportunities that focus on innovative thinking in the classroom
- Online connectivity with educators in a facilitated format
- Specialized training opportunities, including events with Google, Apple and other tech industry leaders to help educators understand the role of technology in the classroom

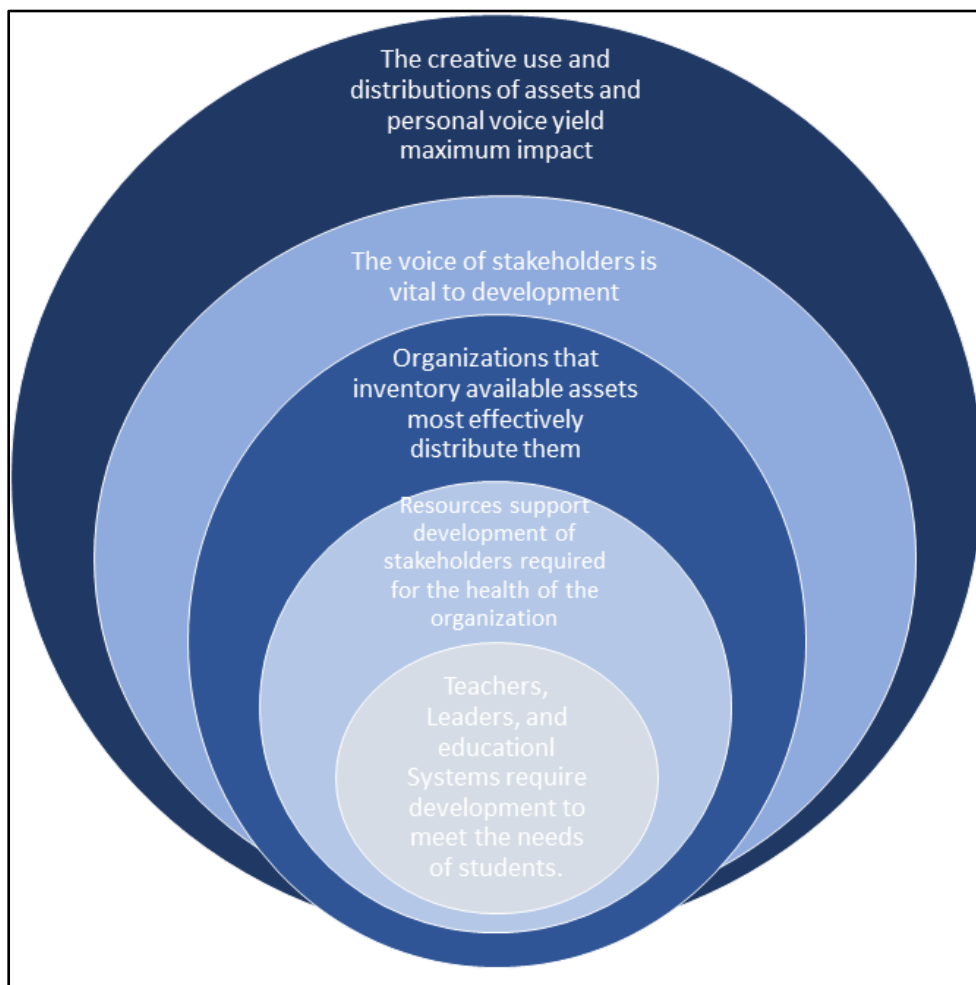**Collective Conclusion and Recommendations**

Joint Conclusion

Educational institutions face mounting pressures from both internal and external forces. Much of the conversation, particularly in urban school districts, revolves around budgets and resources. Superintendents and school boards often communicate that absence of resources is a key obstacle in meeting student goals. While monetary resources are inarguably an important component of any institution, our research provides a different approach to the utilization of available resources which does not rely on increased monetary expenditure. Rather, through our combined research efforts, we suggest that districts must shift from approaching resources through a monetary-dominant perspective and pivot to initiatives aimed at effectively support a district's most important asset: its people.

Our collective body of work suggests that dynamic teachers and leaders are critical to a school's success and their development — including their active participation in choosing development opportunities — and satisfaction are essential to systemic growth. The concept of voice was present in all our works. Teacher voices, leader voices, and employee voices being not only acknowledged, but acted upon was shown to be a critical resource. Listening and responding to what people need was shown to be a vital action that all areas of a system must embody for maximum impact.

While our focus was on non-monetary assets, we acknowledge that an effective organization must create and develop a framework that ensures equitable benefit distribution to its employees. Through a sense of equity, educational workplaces can foster active participation and personal satisfaction from its employees, translating to increased productivity and desire to contribute to district goals.

The contrast between giving schools needed resources while also emphasizing leadership development and the utilization of traditionally less prioritized nonmonetary resources encapsulates our work. While we are acutely aware of the necessity of monetary resource management and are not diminishing the impact increased dollar investments can have on a school district, we maintain that heightened focus on existing resources is a powerful catalyst to achieve goals and further transformational outcomes.

Professional development, staff satisfaction, school resource management are complimentary assets impacting the overarching overall educational system performance. The diagram below is the proposed trajectory for positive systematic growth.

Educational Stakeholder Map