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School Culture and Mathematics Teachers' Experiences: A Story of Johnson High School

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ACCEPTANCE

This dissertation, SCHOOL CULTURE AND MATHEMATICS TEACHERS' EXPERIENCES: A STORY OF JOHNSON HIGH SCHOOL, by ALEXANDRA BRYTTANY STARKE was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education & Human Development, Georgia State University.

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SCHOOL CULTURE AND MATHEMATICS TEACHERS' EXPERIENCES:
A STORY OF JOHNSON HIGH SCHOOL

by

ALEXANDRA BRYTTANY STARKE

Under the Direction of David W. Stinson, Ph.D.

ABSTRACT

Within an era of educational reform, there has been significant discussion and varying opinions about how to measure the "success" of a school. One important element to consider when investigating a school's successes, areas for growth, or strategies for implementing reform is the culture created within the building. Although culture can be difficult to define, school culture is an often-studied topic and can be pivotal in understanding the different aspects within the building (Schein, 2010; Siehl & Martin, 1987). A school's culture can be helpful in creating an atmosphere of support and care for teachers, staff, and students within a building, affecting teacher satisfaction and retention (Teasley, 2017). Currently, existing literature about school culture investigates the creation of culture, the benefits of positive school cultures, and the effect that school culture has on teachers and students within a building, often looking at teacher morale and experiences or student performance and achievement (Erichsen & Reynolds, 2020; Peterson & Deal, 1998; MacNeil et al., 2009; Teasley, 2017). To add to the discussion of school

culture from a broad perspective, it is important to consider the culture created within specific

schools to document their methods of success or ways they can improve their practices.

Therefore, in this ethnographic case study, situated within an anthropological perspective,

I investigated how one school's school culture is described by members within the building, how

that school's culture is created, and how school culture influences the experiences of

mathematics teachers. Multiple perspectives were considered when describing the school culture,

including points of view from leadership, staff, teachers, and former students. I also included

personal narratives and memory data from my perspective, given that I have been employed at

the case site for over 11 years. Together, these different perspectives were synthesized to create a

holistic description of the culture created within Johnson High School, and its effects on

mathematics teachers.

INDEX WORDS: Mathematics Teachers' Experiences, School Culture, School Reform, School

Success

SCHOOL CULTURE AND MATHEMATICS TEACHERS' EXPERIENCES:

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A Dissertation

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DEDICATION

This dissertation is dedicated with love and eternal gratitude to my mother, Donna Starke.

Through your example, I learned about the true treasures in life and how they are worth every

ounce of work and care that you put into them. Thank you for being the constant source of my

strength. "We're Starke women, we can do anything."

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LIST OF ABBREVIATIONS

Abbreviation	Definition
AP	Advanced Placement
AP	Assistant Principal
BLaST	Blended Learning Support Team
CTAE	Career, Technology, and Agriculture Education
EL	English Learner
ELL	English Language Learner
ELA	English Language Arts
EOC	End of Course
ESOL	English as a Second Language
ESSA	Every Student Succeeds Act
FCA	Fellowship of Christian Athletes
GaDOE	Georgia Department of Education
GPS	Georgia Performance Standards
GSE	Georgia Standards of Excellence
IB	International Baccalaureate
IRB	Institutional Review Board
JHS	Johnson High School
JISA	Johnson International Scholars Academy
NCLB	No Child Left Behind
NCTM	National Council of Teachers of Mathematics
PL	Professional Learning
PLC	Professional Learning Community
QBE	Quality Base Education
QCC	Quality Core Curriculum
RTI	Response to Intervention
SIT	School Improvement Team
UGA	The University of Georgia

CHAPTER 1

INTRODUCTION

If a school does not stand for something more profound than raising achievement levels, then it probably does not make a memorable difference to teachers, students, or parents.

— *Terrence E. Deal* (2009)

Throughout my career as a mathematics teacher, I have had a somewhat unique teaching experience. My entire 11 years of teaching have been at the same high school, the same school that I graduated from. I now live 20 minutes away from where I grew up, visiting the same restaurants and stores that I did as a child. Every day, I walk the same hallways that I walked during the awkward years of adolescence. I hear myself start sentences with "when I was a student here…" and then admonish myself for living in the past. I sometimes let waves of nostalgia wash me back to a time when life was maybe a little simpler, before re-focusing on the to do list at hand. These aspects alone are not what makes my story unique, but they contribute to the background of why this story is important for me to share. If I think back to when I embarked on my adventure in mathematics education, this was not necessarily the story that I envisioned for myself. But it's one that I'm extremely thankful for, and one that I'm excited to tell.

Upon graduating from the University of Georgia in December of 2010, my mother threw me a graduation party that I would never forget. She always had a way with party planning, and this event was no different. From the red and black decorations to the enormous spread of food to the hand made "Oh the Places You'll Go" board showcasing accomplishments and future possibilities, she spared no expense with making it an event filled with love and celebration. No one would have thought that she was in the middle of a 5-year long war with cancer. When the dust settled after graduation, and I started planning my next moves, I realized that I was needed at home with her. So, it felt like fate when Johnson High School, my alma mater, appeared on my computer screen when combing through open math teaching positions. I had just finished

interviewing at another school about an hour north of where I lived, and I was confident that I would be offered a job. Teaching at Johnson, however, would have been much more convenient, and I would be starting my career with at least a couple of familiar faces. Full of hope, I reached out, and the math department chair (an old high school teacher of mine) lined up an interview for me within 2 days. I walked into the school where I had spent 4 years of my life; only, it was not the school I remembered.

The walls of Johnson were essentially the same. Outside of a few remodels to office layouts and school restrooms, the building was instantly familiar. This moment was the first of many as I walked the hallways with nostalgia and comfort, while also realizing that there was an essence that was unfamiliar to me. There was so much that I recognized physically; however, schools are so much more than the physical components, a building, or an address. A school is a social entity, it encompasses all the people within it, and it evolves as the people within the walls change. And most of the people within the walls of Johnson had changed since I graduated. It was this essence, this composition, that was new to me. There was an entirely different culture than the one I had left 5 years prior.

The culture within a school is messy and complex. The people within the building and community contribute to the culture as a whole. The culture includes the relationships built between people; the structures established by the leaders. It feeds on the energy and excitement of the members of the school. School culture is an organism with both hidden and visible parts. And it is worth examining.

Ethnographers would warn that conducting a research study at home is a difficult, if not impossible task. Ethnography is essentially focused on studying the "other" and approaching research from an immersive, yet unbiased position. Conducting a study at my home school

would no doubt cross over into a biased terrain. Nevertheless, Johnson High School had a story that needed to be told. As a social scientist, I acknowledge that this research may be biased and messy, but as a researcher, I also recognize the importance of conducting research that contributes to the field in a meaningful way. Having been immersed in the environment for 11 years since I first took those steps down the hallway, having done research on school culture and ethnographic studies, and having the intrinsic need to describe what is happening at Johnson, I felt equipped to investigate this topic.

But to firmly establish the importance of this research, it is essential that I reflect on my time at Johnson, my professional growth, and my motivation for this study. My teaching experience in the past 11 years has been extensive. I have taught under three state curriculums, having taught almost every mathematics subject offered at our school, ranging from support level courses to advanced courses. Through opportunities offered at the school, I have earned my Gifted Endorsement and have become a Canvas certified instructor. In 2018, I stepped into the role of chair of the Department of Mathematics. In 2020, I began a new position as half-time mathematics instructional coach, while maintaining half of a teaching schedule in my own classroom. Also in this time, I completed my master's degree from Georgia State in Mathematics Education and have been employed there as a graduated assistant throughout the entirety of my doctoral program thus far.

My ability to grow both as a professional and as an academic has been greatly influenced by the consistency and stability of my job and my school. For my first 9 years at Johnson, I worked under the same principal and assistant principal. While a new principal was appointed my tenth year, he was promoted within our own school rather than from outside. Turnover in teaching positions and administration positions is not a typical event at my school, even if that

entails employee's long commute. For over a year, I happily chose to drive over an hour to work every day (maybe sometimes mentally counting high schools that I passed along the way, imagining what life would be like if I found a job closer to home). Nevertheless, I never made that professional move. Instead, I bought a house closer to my school. I am not the only employee at my school who has committed to commutes like this. Many of our staff live out of district and make drives upwards of 45 minutes to teach at our campus. While I cannot speak for their motives, mine were always clear: my school is a special place.

The school culture at Johnson was something I was most intrigued to research. During my time at Johnson, I made certain observations that kept me motivated to teach there, personal and professional aspects that I am not sure I would find elsewhere. For instance, I enjoy being in a school where the principal regularly walks the halls, chats with the students about their day, and when asking for teacher input, actually listens. As a teacher, it has been a school where I have felt supported, heard, and appreciated. A school where we strive to make students feel safe, celebrated, and cared about. A school that embraces the overwhelmingly diverse cultural backgrounds of its students. Instead of only looking at the numbers, a school that also emphasizes building relationships and caring for the whole student, not letting test scores drive every conversation during faculty meetings. "Be Honest; Be Respectful; Be Personally Responsible; You are Blessed with Talent, Use it to Make a Positive Difference": these words became more than just a motto or a list of expectations to hang in teachers' classrooms. These words symbolize a set of beliefs, a creed that is reinforced and echoed day after day in the hallways of Johnson High School.

The Knight's Creed (a knight is Johnson's mascot) was implemented in the school 12 years ago when a new principal entered the building. Stan began his principal career with one

apparent focus: to create a culture and community within the school that makes students feel cared for, encouraged, and important, and was therefore a culture conducive to student learning. With that, a new mission and vision was created to drive the goals of Johnson High School. Johnson High School's mission is to "empower students to reach their full potential as lifelong learners and effective members of society by inspiring them to be Honest, Respectful, and Personally Responsible" (Johnson High School, n.d.). The vision of the school is to "Lead with Character, Follow the Creed: Learn…Grow…Achieve" and then re-states the Knight's Creed on the website (Johnson High School, n.d.). Both statements are heavily based on the Knight's Creed, demonstrating how integral it is in the focus of the school. The Thoughtful Classroom Teacher Effectiveness Framework (one of many teacher evaluation systems implemented in high schools and professional developments since No Child Left Behind) emphasizes four cornerstones of effective teaching: (1) organization, rules, and procedures; (2) positive relationships; (3) engagement and enjoyment; (4) a culture of thinking and learning (Silver Strong & Associates, 2014). The way that the Knight's Creed is infused within the school's mission and vision, as well as Stan's daily words of encouragement to his teachers, staff, and students, emphasize the belief that building positive relationships is paramount to all else at in effectively creating a culture of learning.

At first, it was unclear how to go about conducting my study of Johnson's school culture. When I would describe my school to fellow educators, I was often met with surprise. "Schools like that do not often exist" was a comment made to me from a professor early on in my doctoral program. I was astonished and confused by the reactions of those around me. In conversations, I found myself trying to describe the culture and feel of what my school is like, of what our students are like, and what the leaders at our school strive to accomplish. I wanted to

demonstrate that schools like mine *do* exist. Through these conversations, I discovered a topic that warranted further exploration and research. But, more importantly, I wanted to investigate what makes it work. What makes it special? How is the culture created? How is it sustained? And what are the key elements to its success? As a mathematics teacher, how has growing as an educator in this culture affected my experiences? How has it affected the experiences of my fellow math teachers? How can I research this school so that it can provide insight for other schools?

Purpose of the Study

It is important in educational reform to not only implement changes that are focused on an increase in student achievement but also to consider the beliefs and opinions of those who are most affected by changes in education policies. The establishment of a positive school culture not only enhances the quality of teachers' lives but also increases engagement, motivation, and student achievement, as shown in the literature reviewed in Chapter 2. By investigating the "pieces of the puzzle," so to speak, that make up school culture, educators and those in leadership positions can be more intentional in establishing school environments that are conducive to building positive relationships among staff and students, and are, therefore, more conducive to student learning and engagement.

In my study, using a qualitative ethnographic case study methodology, I examined how the school culture of Johnson High School is created, and how mathematics teachers experience their jobs within the context of school culture. By using elements of ethnographic research, I conducted an in-depth analysis of the elements of the culture, from the native perspective. By using interviews, participant observations, and personal narrative and memory data, I investigated "what is going on here?" an important question in qualitative inquiry.

This investigation contributes to the literature by researching the intertwined layers of school culture and how it affects teachers, investigating the particulars of a single, unique case. By grounding my study in anthropological theory, I investigated the culture of a group as a whole. As Geertz (1973) emphasized, studies in interpretive anthropology do not need to pick up where others have left off but add to the collective work on a subject. This research provides insight to instructional leaders on how school culture influences teachers' experiences and how they might navigate that terrain in their decision-making processes. Although conducting research in my home school came with challenges, I continually grounded my study in research and theory, adding to its validity.

Research Questions

It is important that I developed strong and descriptive research questions that aided me in the navigation of my study. Developing my research questions, however, was a reflective and iterative process. Agee (2009) stated —

> conceptualizing, developing, writing, and re-writing research questions are all part of a dynamic, reflective qualitative inquiry process. Using qualitative research questions reflexively can help researchers to clarify purpose, make connections with a field of study, and reflect on and interrogate the impact of the research trajectory on participants. (p. 445)

Stake (1995) mirrored this sentiment when he stated, "in a qualitative research project, issues emerge, grow, and die" (p. 21) and that "the best research questions evolve during the study" (p. 33). My research questions went through many drafts before the start of the study and were edited again once my data analysis process began. I found myself asking "how does this data relate to these research questions?" and finding a disconnect between the two. Thus, I edited my

research questions to reflect more accurately what the data were telling me. In their final draft, the research questions that informed my study were:

(1) What is the school culture of Johnson High School?

    a. How do members of the school community describe its culture?

    b. What, according to their perspectives, are integral pieces of the culture?

    c. From their perspective, what contributes to the creation and sustaining of the culture?

(2) What are the experiences of mathematics teachers within the context of school culture?

CHAPTER 2

LITERATURE REVIEW

As social scientists conduct research to better understand human beings and the world around them, many of their studies have focused on the concept of culture. But a prevalent theme throughout the literature has been the absence of a clear and commonly accepted definition of "culture." For instance, Siehl and Martin (1987) stated, "although definitions of culture are available, their shared attribute is vagueness" (p. 433). Schein (2010) said, "I see several competing approaches to the definition and study of organizational culture" (p. 311). Generally speaking, Uçar and Ipek (2019) found that the study of organizational culture by researchers in different disciplines "has led to the emergence of different definitions and views of this concept" (p. 102). So, what does a study on culture look like, and why is it an important topic to study? Schein insisted that studies on culture imply concepts that other areas of study do not, such as stability, group consensus, and observed patterns. Additionally, within education, culture affects much of what teachers, students, and administration experience within a school. Hinde (2004) claimed,

> culture influences all aspects of schools…it is not a static entity. It is constantly being constructed and shaped through interactions with others and through reflections on life and the world in general…[it] becomes a guide for behavior that is shared about members of the school at large. (pp. 1–2)

In the following literature review, I discuss the importance of establishing a positive school culture, detailing how it contributes to a goal-oriented atmosphere, student growth and learning, battling low teacher morale, and satisfying the need to belong. I also discuss the creation of positive school culture, including research on the forces that contribute to its creation as well as those that impede the creation, as well as characteristics that help identify positive

school cultures, and how a school's culture influences the teachers and students within the school. Additionally, as this study is specifically examining mathematics teachers' experiences, I also include a brief look at mathematics education reform and the effect it has had historically on mathematics teachers. Before zeroing in on the concept of school culture and mathematics education reform, I first describe how culture is defined and studied within sociology and anthropology, two of the most prevalent disciplines that examine culture. I also provide a general discussion of organizational culture and how it applies to studies conducted at the school level.

Different Views of Culture

In his book *The Sociology of Culture*, Raymond Williams (1995) traced different associations of the term "culture." From the earliest sociological studies, culture was defined as a process, looking at the culture (cultivation) of crops or animals, and then the culture (active cultivation) of the human mind. Williams described a distinct shift in the late eighteenth century from a definition of process to a generalization of spirit that "defined the whole way of life of a distinct people" (p. 10). This shift aligns with today's common sociological definition of culture: "the symbols, language, beliefs, values, and artifacts that are a part of any society" (Minnesota University, 2010). Sociologists examine society as a whole, focusing on the study of social problems or phenomena. Thus, sociological studies of culture often examine how different societies have distinct lived experiences, with their culture playing a key role in making meaning and explaining social action (Reed & Alexander, 2009).

From an anthropological perspective, Edward B. Tylor (1832–1917) was one of the earliest researchers to discuss the concept of culture in his book *Primitive Culture*, published in 1871. According to Logan (2012), Tylor viewed culture as the learned attributes of society, with his list including: "knowledge, belief, art, morals, law, custom, and any other capabilities and

habits acquired by man as a member of society" (p. X). His definition, however, inspired much discussion and disagreement amongst anthropologists, as it was more of a description than a definition. Later, legendary anthropologist Margaret Mead (1964) defined culture as—

> a process through which [woman and] man creates his living environment and is able to improve it progressively by retaining and modifying advances made by previous generations, teaching the whole to subsequent generations, borrowing innovations made by other groups, and making innovations which are capable of perpetuation. (p. 36)

This definition aligns with what anthropologists seek when researching culture, as many anthropological studies are focused on identifying groups with shared cultural knowledge and understanding how those subcultures co-exist within a larger environment, considering influences from the past and present (Hudelson, 2004). Anthropologists typically use ethnographic research methods, investigating the "why," "how," and "what" of human experience (Hudelson, 2004).

Apart from sociological and anthropological approaches, a third perspective more commonly used in educational studies is organizational culture. Organizational culture is just that, the culture that exists within an organization, and according to Shafritz and Ott (1992) is "composed of many intangible phenomena, such as values, beliefs, assumptions, perceptions, behavioral norms, artifacts, and patterns of behavior. It is the unseen and unobservable force that is always behind the organizational activities that can be seen and observed" (p. 292). Organizational culture includes various applications to the corporate world, with specific interest in investigating how to apply culture theory to management approaches and entrepreneurship.

In her edited volume *Organizational Culture: Leadership Strategies, Outcomes, and Effectiveness*, Cameron Fuller (2015) presented a collection of papers that investigate

organizational culture. Ideas she examined include the relationship between organizational knowledge and power, how to implement cultural change, and links between organizational culture and management style, decision making, employee satisfaction, and business efficiency. The contributing authors applied the five dimensions of organizational culture, which Fuller defined as "persistent learning, interpersonal trust, power distance, long-term orientation and team spirit" (p. vii). In addition to their application to the business world, these concepts can also apply to education.

Schein (2010) explained a different approach to studying organizational culture, one that is both observational and clinical, using academic knowledge and his own lived experience. He emphasized a difference in the "essence" of culture and its "manifestations," identifying three distinct levels of culture: artifacts, espoused values and beliefs, and basic underlying assumptions (p. 24). From these three levels, he defined culture as:

> A pattern of shared basic assumptions, that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p. 18)

He argued that studying culture within organizations could benefit leaders with trying to understand the inner workings of their workspaces. He claimed, "being a doctor, lawyer, engineer, accountant, or manager involves not only learning technical skills, but also adopting certain values and norms that define our occupation" (p. 8). Schein explained that by studying culture, not only will we further understand why the norms within certain organizations can be so different than what we are familiar with, but also, we end up understanding more about ourselves and our ways of knowing. Furthermore, studying culture can help explain why it can be so

difficult to implement change in an organization. Extending on Schein's explanation, Sabancı and colleagues (2017) offered a cohesive, summarizing definition of organizational culture:

> culture is a historically rooted, socially transmitted set of deep patterns of thinking and ways of acting that give meaning to human experience, that unconsciously dictate how experience is seen, assessed and acted on. It helps us perceive and understand the complex forces that work below the surface and are in the air of human groups and organizations. (p. 27)

It is the desire to understand the forces specifically within the organization of a school that often inspires research on school culture. Sabancı and colleagues' definition of culture depicts the point of view that I adopted throughout my research study.

School Culture

As Jacquetta Burnett (1970) explained, "school cultures are no more than a special case of the culture of organized institutions" (p. 4). Adopting tenants of organizational culture within a school building is common throughout the literature (Henstrand, 2006; Holme & Rangel, 2012; Teasley, 2017). Babelan and colleagues (2019) stated, "organizational culture represents a broad umbrella, referring to the traditions, rituals, shared norms, and assumptions of a school. These site-specific beliefs are adopted over time and provide a distinct character to the school" (p. 140). School culture has been the focus of a growing body of research in the education field, investigating aspects such as the relationship between culture and school performance, teacher morale, and student achievement (Abazaoglu & Aztekin, 2016; Byrd-Blake et al., 2010; Erichsen & Reynolds, 2020; Hinde, 2004; Khan Farooqi & Ali, 2019; Grissom et al., 2014; MacNeil et al. 2009; Ronfeldt et al., 2013; Sharma, 2016; Uçar & Ipek, 2019). Other studies have investigated the composition of a school culture, school reform, and how culture is created (Burnett, 1970;

Grover, 2014; Holme & Rangel, 2012; Rhodes et al., 2011; Tesileanu & Bazgan, 2019; Trickett & Todd, 1972). School culture intertwines with the environment of a school, which is composed of a variety of elements, both physical and psychological in nature. Physical components include geographical characteristics, such as location and demographics, as well as the infrastructure of the building, such as the layout of offices, classrooms, technology, and recreational facilities (Khan Farooqi & Ali, 2019). The physical condition of the school, as well as what resources are available to teachers and staff, can greatly affect their day-to-day operations and experiences. Psychological factors depend more on the individuals and groups that exist within the building and social contexts in which they interact. Individuals within a school, complete with their own personal and historic backgrounds, contribute to the school make-up as a whole. Burnett (1970) stated, "the culture of a school is assumed to be a subset of a full set of cultural patterns characterizing a community" (p. 4). Other psychological factors include administrative styles, the diversity of the staff and students, relationships among staff, and relationships with students (Khan Farooqi & Ali, 2019). Overall, school cultures have a large effect on the individuals within a school, and thus it is important to establish positivity within the building.

Importance of Positive School Cultures

A strong sense of culture or community does not necessarily indicate a healthy, positive, or productive community. Sharma (2016) described the school culture as "the organizational 'personality' of a school" (p. 3). The personality of a school (similar to personalities of individuals) could have either positive or negative effects on those around it, or within it. Willower and Smith (1987) claimed, "school cultures that stress academics could stint critical thinking or social skills. Further, strong cultures tend to stress conformity and limit individual initiative" (p. 94). While weak school cultures can be detrimental to accomplishing a school's

goals, having a strong culture that does not foster positivity and productivity could create increased tensions among staff, also preventing a school from making forward progress (Willower & Smith). When examining school culture and workplace environments, it is important not only to consider how to create a strong culture but also how to create a cohesive, positive workplace for all those involved, where individuals are encouraged and thrive. Teasley (2017) emphasized that "positive school culture is conducive to professional satisfaction, effectiveness, morale, and creating an environment that maximizes student learning and fosters collegiality and collaboration" (p. 3). Including and expanding on this list, there are many valuable and significant motivations for the establishment of positive school cultures. Those that I will focus on include the establishment of a goal-oriented atmosphere, supporting student growth and learning, mitigating low teacher morale and high levels of burnout, and satisfying the need to belong.

Goal-Oriented Atmosphere

According to the literature, one significant motivation behind establishing a positive school culture is to create a collaborative, goal-oriented atmosphere among leaders, teachers, and staff. The existence, or absence, of a healthy workplace environment affects employees' abilities to appreciate their workspace and affects a staff's ability to perform well to achieve organizational goals (Khan Farooqi & Ali, 2019). The strength of a school culture can also influence the motivation level of teachers, which contributes to the success of staff goals (MacNeil et al., 2009). When teachers and staff can see the direct effect of their efforts on short-term goals or common aims, there is more cohesion and collaboration amongst staff. Healthy school cultures help empower teachers to be united and supported in both the pursuit of their goals and the creation of a safe learning environment for all students (Myer, 2012).

Positive school cultures can also play a role in the success of school reform. The literature has shown that it is paramount to first understand the culture of a school before implementing any type of change (Hinde, 2004; MacNeil et al., 2009; Rhodes et al., 2011). Rhodes and colleagues (2011) emphasized that "the key to the successful design and implementation of high school programs is school culture" (p. 83). Additionally, in her study on why reform efforts fail in schools, Hinde (2004) found an abusive school environment as one of the most prevalent factors. She discussed how when the governance structure of a school is such that principals include teachers, staff, and parents while making decisions, reform is more likely to be implemented successfully. On the other hand, change that runs counter to a well-established but oppositional teacher culture might be resisted, limiting success. The use of a team atmosphere is imperative in the accessibility of long-term goals. Myer (2012) stated, "no matter how capable a leader is, he or she alone won't be able to deliver a large project or program without the joint efforts and synergies that come from a team" (p. 57). Therefore, as schools are designing reform initiatives or setting school improvement goals, they can increase their potential of successful implementation by first facilitating a culture that is receptive to change.

Student Growth and Learning

MacNeil and colleagues (2009) claimed, "the first major purpose of a school is to create and provide a culture that is hospitable to human learning" (p. 75). This notion speaks to another paramount reason for establishing a positive culture: to benefit student development. The establishment of a school's culture as a healthy and cohesive learning environment to improve the social and academic achievement of students is another common theme in the literature, with many studies investigating the relationship between culture and student achievement (Sabin, 2015; Saphier & King, 1985; Teasley, 2017). Through her research, Teasley (2017) found that

"school climate and culture were among the top influences in affecting improved student achievement" (p.3). MacNeil and colleagues (2009) similarly stated, "improvements in student achievement will happen in schools with positive and professional cultures that reflect a positive school climate" and that student achievement will suffer in an environment that is not hospitable to learning (p. 77). Another finding in Teasley's study was the idea that if academics and relationships are at the forefront of the school's focus, students will have fewer behavioral issues. She emphasized that "the stronger a given school's culture is in the promotion of academic excellence and prosocial youth development, the less likely there will be a need for high usage of exclusionary discipline practices" (p. 3). Creating an atmosphere conducive to optimal learning is a prevalent motivation for implementing cultural change (Hinde, 2004; Rhodes et al., 2011).

Not only has research shown that positive school culture is important for student achievement and student learning environments but also it has shown that it can create more opportunities for teachers' instructional growth (Babelan et al., 2019; Okeke & Mtyuda, 2017; Saphier & King, 1985). Saphier and King (1985) emphasized, "if certain norms of school culture are strong, improvements in instruction will be significant, continuous and widespread; if these norms are weak, improvements will be at best infrequent, random, and slow" (p. 67).

Teacher Morale and Burnout

The need for developing positive school environments has also been called upon in response to an increase in teacher stress and low workplace morale. In education, many reforms and policies that have been implemented in the last 20 years have led to increased teacher burnout and attrition (Byrd-Blake et al., 2010; Erichsen & Reynolds, 2020; Grissom et al., 2014). Increased national accountability pressures and teacher evaluation systems have negatively influenced how teachers experience their jobs and, in turn, have influenced the atmosphere

created for their students (Darling-Hammond, 2007; Lambersky, 2016). One way to combat increased accountability pressures, increase teacher buy-in, and help mitigate stressful demands for teachers is to create an environment in which teachers feel supported and heard (MacNeil et al., 2009). Holme and Rangel (2012) stated,

> each school's response to the accountability pressure would be affected by the internal organizational features of schools that have been demonstrated to ''matter'' with respect to organizational change: capacity (skills and capabilities of individuals in the organization), trust, strong social networks, and teacher beliefs. (p. 258)

Similarly, MacNeil and colleagues (2009) argued, "as accountability through tests has become a threat, school principals need to work on long-term cultural goals in order to strengthen the learning environment" (p. 74). A culture that fosters collaboration and reinforces teacher autonomy can help make teachers feel as though the extra burdens are more manageable, or more worth it. The connection between teacher morale and school culture is cyclical and well-researched, with teacher morale being a motivation behind building positive school cultures, as well as influenced by school culture. As such, the relationship between morale and school culture is examined further later in this literature review.

The Need to Belong

Lastly, another motivation behind building a positive school culture is the intrinsic need to belong to a group and build interpersonal relationships. Baumeister and Leary (1995) claimed, "human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships" (p. 497). Many of these relationships occur outside the workplace. Nonetheless, studies show that it takes little to form social bonds and attachments (Baumeister & Leary, 1995). As such, the likelihood of social

bonds forming in a workplace environment are great, and is a motivation for creating a positive, healthy atmosphere. Myer (2012) noted the need to belong as part of the appeal for a team mentality, asserting, "when the needs for safety and for physiological well-being are satisfied, the need for love, affection, and belonging can emerge" (p. 58). It is important to form a culture that satisfies these needs. In other words, a school's organizational culture, according to Teasley (2017), "provides a sense of identity, promotes achievement orientation, helps shape standards and patterns of behavior, creates distinct ways of doing things, and determines direction for future growth" (p. 1).

Creation of Culture

Once motivation to create a positive school culture is established, the question becomes "how?" Teasley (2017) offered some ideas of what must occur in the transformation of a culture: "Administration, teachers, and staff must engage in healthy behaviors; promote collaborative decision making with input from students, staff, and parents; display high professional standards; and consistently hold students to high standards, with a majority of students meeting such standards" (p. 3). Nevertheless, establishing a cohesive, positive culture is a daunting task, with numerous moving pieces. Teasley asserted that it requires "leadership, teamwork, and attention to total orientation" (p. 3). Alternatively, Holme and Rangel (2012) offered three major areas essential to the creation of culture: "relational capital (morale and trust), intellectual capital (teacher knowledge), and cognitive capital (norms and goals)" (p. 279). Here, I discuss forces that support as well as those that impede the creation of positive school culture, with a particular emphasis on the role of the leader in the creation process, as it was a prevalent theme in the literature.

Forces that Support Positive School Culture

Beginning with Holme and Rangel's (2012) third area of culture creation— cognitive capital—research has shown it is fundamentally important to create and instill clear visions, norms, values, and common goals (Rhodes et al., 2011; Saphier & King, 1985). By doing so, schools can lay foundational work for a culture to grow upon, giving it shape and direction. Myer (2012) stated, "you have to know where you are going and be able to state it clearly and concisely" and, perhaps even more importantly, "you have to care about it passionately" (p. 54). Similarly, Rhodes and colleagues (2011) emphasized that values are foundational, as they—

> have a profound influence on whether school administrators and teachers emphasize individual autonomy over teamwork, entrenched tradition over innovation, or fierce competition over constructive collaboration. They are the moorings for how everyday life in offices, classrooms and corridors is actually lived. Values are vital for the success of all educational initiatives because they have a direct bearing on how school actors respond to school operations. (p. 83)

Nevertheless, the discussion behind building a vision and purpose, or setting new school improvement goals, should not be established by leadership alone. It is imperative to include many groups of people in the conversation, including leadership, teachers, and community members (Myer, 2012). This inclusion not only creates a more committed atmosphere but also could make teachers feel heard. Wronowski and Urick (2019) stated, "administrator support and inclusion of teachers in decisions is important to help reduce external pressures and other job burdens that teachers might face" (p. 6). Similarly, Erichsen and Reynolds (2020) claimed that teachers are "more committed to their jobs when they felt respected and trusted by administrators, were included in decision making, and felt supported on classroom discipline

issues" (p. 2). The collaboration and presentation of collective norms is important, as they are created by the values and beliefs of the individual members within the group (Tesileanu & Bazgan, 2019).

Additionally, collaboration can assist in successful school change. In her study, Hinde (2004) determined that "schools where the governance structure is such that the principal makes most decisions and the staff and parents are not involved are less likely to embrace change" (p. 5). Developing a sense of unity and inclusivity in decision-making creates an atmosphere where reform is more likely to succeed. Furthermore, if a sense of collaboration is fostered between administration and teachers, teachers will also be encouraged to collaborate amongst themselves. By engaging in collaboration, organization analysis, and planned intervention, school social workers, administration, teachers, and staff can help shape the school environment in a positive way (Teasley, 2017). Teacher teams can be especially effective in schools that serve youth with diverse backgrounds, including cultural, socio-economic, and emotional and cognitive needs (Rhodes et al., 2011).

Collaboration however is only possible if a community of relational trust is established and fostered. This need for collaboration ties back to Holme and Rangel's (2012) first area of culture creation: relational capital. Rhodes and colleagues (2011) emphasized that relational trust (a concept they borrow from Bryk and Schneider), is organized around relationships. Each person "maintains an understanding of his or her obligations and has expectations about the obligation of others" and if these expectations are upheld and met, then trust is solidified (p. 83). This trust is essential in school reform. Additionally, Teasley (2017) found that—

> developing a sense of community through relationship building and promoting high
> achievement are salient factors in building a culture of school success…the use of

relationships and meeting people 'where they are' in the workplace is the cornerstone of

social work practice and highly important to creating positive school culture. (p. 4)

The community built by establishing these relationships can also enable teachers to lean on each

other through stressful situations. This type of community helps teachers feel like they are not

alone when the pressures start to build, a concept described as "stress bonding" by Rhodes and

colleagues (2011).

In addition to establishing core values, facilitating a collaborative decision-making team,

and emphasizing relationships, "creating and sustaining positive school culture is not possible

unless schools have intentional structures to support it" (Rhodes, et al., 2011, p. 84). By creating

specific structures that allow for open communication, teachers and principals can meet

regularly, share decision making, learn together, create innovative pedagogy, and work closely

with students (Rhodes et al.). Rhodes and colleagues emphasized, "professional development

that includes team building and the co-production of curriculum and instruction" is important in

establishing a positive culture (p. 84). It is important for teachers to have opportunities to foster

their content and pedagogical knowledge, emphasizing Holme and Rangel's (2012) second piece

of culture creation: intellectual capital. Professional development opportunities should not only

be plentiful but also meaningful.

Of utmost importance is that different cultural creation tactics are modeled, not simply

implemented from above. Tesileanu and Bazgan (2019) emphasized that administration should

lead by example in their "style of decision making, the level of formalism, the manner of

organization, the policies, and almost all the systems that offer value and support to a certain

type of activity and a certain type of behavior" (p. 20).

Forces that Impede Positive School Culture

Turning now to forces that impede the creation of positive school culture, one of the most significant forces is the increase in the demands of teachers, administration, and other school staff. Researchers have shown that the shift of teacher expectations and accountability measures due to No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA) have had negative effects on school environment and organizational culture (Erichsen & Reynolds, 2020; Okeke & Mtyuda, 2017; Teasley, 2017). Teasley stated, "the move toward greater academic accountability and zero tolerance has shifted the climate and organizational culture of many schools in ways that are not productive in any attempt to successfully maximize student outcomes" (p. 4). Additionally, in their study investigating public school accountability and its effect on morale and workplace culture, Erichsen and Reynolds found that "a workplace culture of professionalism and collaboration matters most for predicting teacher morale in general and linking accountability pressures to morale" (p. 10). Without adequate support systems, these increases in teacher demands and teacher stress could impede the creation of a strong positive culture.

Ultimately, school and workplace culture will be created whether intentionally or un-intentionally. Teasley (2017) stated, "school-based professionals should not leave organizational culture to chance because it exists and will flourish, whether by happenstance or planned and deliberate practices" (p. 5). Sometimes a culture may develop that can be detrimental to the school goals, or create environments of seclusion, dissatisfaction, and lack of teacher buy-in. Without efforts from the administration and teachers to create a united community, one study found that "the teacher and student groups are devoted to different values and have different agendas even if they are not always explicitly in opposition to one another" (Willower & Smith,

1987, p. 93). Additionally, without collaboration among teachers and administration, "the teachers felt they had little influence on decision making in the school" (Willower & Smith, 1987, p. 90). The idea of inclusivity when making plans or decisions is a common theme in the literature, and when it is not successfully implemented, teachers or staff are often left feeling unheard or ignored (Lambersky, 2016). If a culture forms unintentionally, and it perpetuates a negative atmosphere, it can be difficult to shift to a positive environment.

Another factor that can be detrimental to creating a positive school culture is the leadership within the school. Whether this hindrance emerges from lack of effort in creating culture, a misplaced emphasis of importance, or other factors, the administration team has a pivotal role in the success or failure of creating a positive school culture. Because this element is by far one of the most prominent themes in the literature concerning the creation of school culture, I discuss how it can be either a supporting or impeding factor.

The Role of the Leader

Researchers have shown that the principal is essential in creating a healthy and positive school culture (Hinde, 2004; MacNeil et al., 2009; Rhodes et al., 2011). There is a difference, however, between leading and managing, and those principals wishing to lead must first focus on school culture (MacNeil et al., 2009). Babelan and colleagues (2019) stated,

> to develop a meaningful and productive school, leaders must shape a culture in which every teacher can make a difference, and every child can learn and in which there is a passion for, and commitment to promoting the best is possible. (p. 151)

By focusing on the culture of the school, principals can have a wide-reaching effect on many academic, social, and psychological aspects of the school and the individuals within it (MacNeil et al. 2009). Teasley (2017) insisted that principals "promote growth in student learning, manage

their human capital, develop and support teachers, use data to drive student learning improvements, and build a culture of high expectations for the adults and students in the building" (p. 4). Setting high expectations and supporting teachers can be essential in their creation of a culture that promotes and encourages student learning. Additionally, MacNeil and colleagues (2009) claimed, "school principals seeking to improve student performance should focus on improving the school's culture by getting the relationships right between themselves, their teachers, students and parents" (pp 77–78). Adopting a "relationship first" mentality can establish a higher level of trust and security, both of which are essential in a conducive learning environment for students and a positive culture.

As leaders, the support systems that principals create for teachers and among teachers is imperative in creating a positive workplace atmosphere. Many studies have specifically investigated how school leaders influence teacher morale and motivation (Byrd-Blake et al., 2010; Lambersky, 2016; MacNeil et al., 2009). Ways that administration have positive effects on teacher morale include acknowledging teachers, listening to the needs of teachers when they are asked or expressed, having an active presence in the building, and supporting teachers with the needs of their jobs (Lambersky, 2016). Supporting teachers in their endeavors has a substantial effect on the climate of the building. While teachers may receive support from fellow colleagues and collaboration groups, principal support is important to teacher job satisfaction (Myer, 2012). It is also important for principals to incorporate opportunities for teacher development and growth. Teasley (2017) claimed that principals need to be skilled leaders who "purposely engage in the development of programs and practices that direct school culture in certain ways" (p. 3). These actions could help develop a school's teacher and staff professional abilities.

Additionally, by trying to increase teacher morale, principals can influence teacher retention, which influences the culture within a school. When studying a school with a stable, positive culture, Holme and Rangel (2012) found that "the strong relationships at the school likely enhanced teacher retention, reinforcing what stability the school already enjoyed" (p. 275). With high turnover rates, it is difficult to maintain a strong sense of cohesion and community within a school (Erichsen & Reynolds, 2020). If principals succeed in decreasing teacher turnover, this reduction could aid in the creation of a strong culture, and in turn have a positive effect on student achievement (Rhodes et al., 2011). According to Wronowski and Urick (2019), "principals, through increasing teacher autonomy as well as their communication of a vision, teacher support and management, influence teacher satisfaction and their decisions to stay" (p. 6). A similar conclusion is echoed in a study conducted by Erichsen and Reynolds (2020) in which they concluded, "what is most important for retaining teachers is the quality of school leadership, positive relationships among colleagues, and an organizational culture of trust, respect, and shared commitment to instructional excellence" (p. 2).

Conversely, lack of principal support may cause distress among teachers, weakening the school culture as a whole. In their study, Okeke and Mtyuda (2017) found, "administrative issues, lack of recognition by principals and parents for good work done caused dissatisfaction among teachers" (p. 54). Often, teachers can recall examples of ways they have felt supported, as well as ways they have felt lost within the bureaucracy of education. In his study, Lambersky (2016) quoted a teacher who felt—

> like a cog in the machine. It's just like you're just another…You're just churning almost all the time with very little to make you want to keep going…It's a lot of negativities all the time. Everybody needs affirmation or encouragement. (p. 389)

School leaders must be intentional with not only creating opportunities for teachers to contribute ideas, but also with their intent to listen. Willower and Smith (1987) found that while teachers spoke of integrating curriculum that enabled students to be productive members of the community, "they did not see the administration as an ally in this endeavor" (p. 90). They also found that the teachers felt as though their ideas, while sought out, fell on deaf ears and that the principal only "heard what he wanted to hear and acted accordingly" (p. 91). Mirroring this idea, Myer (2012) claimed, "insensitive, tone-deaf leaders drive negative emotions and create dissonance in a group. This discord is highly destructive to the group's functioning" (p. 63).

The way in which school leaders create power structures, as well as how power is used, has a large effect on the culture. Myer (2012) argued that if administrators lack power, or fail to use the power they have, chaos ensues. She asserted that sometimes the chaos is loud, with disagreements or even rebellion, and at other times, the chaos is quiet in the form of apathy. The use of power is significant in whether the culture attracts strong teachers. Principals also affect how individuals create meaning on the job (Babelan et al., 2019). Babelan and colleagues found that if principals work toward empowering teachers, they can create a more engaging environment. Conversely, they may create an atmosphere with lack of teacher buy-in. Without engaged teachers, a school leader has nothing to lead. Myer (2012) said, "a person with no constituents is not a leader…leaders cannot command commitment; they can only inspire it" (p. 72).

Characteristics of Positive School Cultures

As leaders move to make changes within their buildings, it is important to be able to identify the characteristics that are representative of positive school cultures. By recognizing these identifiers, school leaders can help determine if there is a need for a shift in the school

culture. Some factors that might indicate a change is necessary are "poor teacher, parent, and community relations; cultural bias; low teacher diversity in diverse school settings; high levels of student incivilities met by highly punitive practices; and the disproportionate representation of minority children and youths enrolled in special education" (Teasley, 2017, p. 3).

Positive school cultures can be identified by the interpersonal relationships and sense of community amongst individuals in the school (Teasley, 2017). Peterson and Deal (1998) described "a place with a shared sense of what is important, a shared ethos of caring and concern, and a shared commitment to helping students" (p. 29). Myer (2012) found that when a school leader focuses on relationships first and are in tune with the emotions of others, they can create resonance within the school, "much like the musicians in an orchestra create resonance when their instruments are in tune" (p. 63). But relationships are not the only indicators of a positive school culture. Peterson and Deal expanded on the list by including:

- Where staff have a shared sense of purpose, where they pour their hearts into teaching;

- Where the underlying norms are of collegiately, improvement, and hard work;

- Where rituals and traditions celebrate student accomplishment, teacher innovation, and parental commitment;

- Where the informal network of storytellers, heroes, and heroines provides a social web of information, support, and history;

- Where success, joy, and humor abound. (p. 29)

These concepts are mirrored in other studies. MacNeil and colleagues (2009) emphasized that healthy schools exhibit the following: "goal focus, communication, optimal power equalization, resource utilization, cohesiveness, morale, innovativeness, autonomy, adaptation, and problem-solving agency" (p. 77). To provide comparison, Peterson and Deal described an environment

that has become unproductive and toxic: "These are schools where staffs are extremely fragmented, where the purpose of serving students has been lost to the goal of serving the adults, where negative values and hopelessness reign" (p. 28–29).

Additionally, a school's culture can be identified by the way communication is facilitated amongst staff. Rhodes and colleagues (2011) found that "positive school cultures encourage civility, respectful language usage, and modes of communication that bind school actors together and facilitate open discussion and thoughtful decision-making" (p. 83–84). In contrast, Peterson and Deal (1998) examined schools in need of change, describing that "these are places where negativity dominates conversations, interactions, and planning; where the only stories recounted are of failure" (p. 29). The overall tone of communication, discussion, and storytelling can perpetuate the culture of a school and convey to outside observers the health of a school's culture.

Lastly, a positive school culture can be characterized by whether reform has been successfully implemented or if teachers are resistant to change. Hinde (2004) found that schools with positive cultures have teachers and staff members who are willing to take risks and enact reforms. Or it might be the case that pockets of reform are successful, but policies are not adopted by all teachers. Saphier and King (1985) described the result of a weak school culture where improvements are solely dependent on "the energies of hungry self-starters" and are "confined to individual classrooms over short periods of time" (p. 67). For change to take place school-wide, it is important for all individuals to be involved. The importance to include all members in this process is also emphasized when considering those who are most affected by the school cultures they are a part of—the teachers and the students.

School Cultures: The Effect

A school's environment, character, and culture affect both the individuals within the school, as well as the goals that they are trying to achieve. It is important for this environment to be a place where teachers and students can thrive in pursing their goals. Rhodes and colleagues (2011) stated, "school culture influences how teachers, school administrators, students, and other school actors render schooling into meaningful and actionable practices" (p. 83). In a negative environment, teachers' experiences and student achievement and success might suffer.

Effect on Teachers

A poor workplace environment could affect teachers' desires to continue working within a specific school, or within the profession altogether. Erichsen and Reynolds (2020) stated—

> teachers who leave their schools in any given year do so for a variety of reasons…but one of the most important reasons teachers give for why they change schools or leave teaching altogether is dissatisfaction, especially dissatisfaction with school leadership and conditions on the job. (p. 2)

Leadership and conditions on the job are integral parts of the workplace culture, and thus have a large effect on the ability for teachers to remain satisfied with their jobs and successful in achieving their goals. In researching teacher job satisfaction in public education, many studies specifically investigate teacher morale. In their study, Khan Farooqi and Ali (2019) defined morale as "an attitudinal changeable variable which reveals positive or negative feelings about a particular status of individuals" (p. 13). Focusing specifically on mathematics and science, Abazaoglu and Aztekin (2016) found a relationship between the school environment and the morale of teachers, claiming that teacher morale has a significant effect on student motivation (p. 2616). Khan Farooqi and Ali (2019) also found a significant and positive relationship between

workplace environments with teacher morale, claiming "conducive workplace environment enhances the working efficiency of the employees as well as the organization" (p. 17). Furthermore, Erichsen and Reynolds (2020) found "work in the area of school culture confirms the centrality of trust and shared values for boosting teacher morale and helping teachers endure challenging circumstances" (p. 2). Similar findings were mirrored in studies in India and Turkey, demonstrating positive correlation between teacher morale, motivation, and organizational culture of public schools (Sharma, 2016; Uçar & Ipek, 2019).

Okeke and Mtyuda (2017) claimed, "better performance of teachers can only be expected if they are satisfied with their jobs" (p. 54). By implementing policies that create a sense of community, schools can help dissipate low teacher morale and construct a supportive environment for all members within the school. Additionally, low teacher morale might increase teacher turnover rates, ultimately having a negative effect on the school as a whole (Erichsen & Reynolds, 2020; Khan Farooqi & Ali, 2019; Sharma, 2016; Stearns et al., 2014). Stearns and colleagues (2014) stated,

> schools are dependent on having teachers who are satisfied with their jobs and who work with one another to build a workplace community. Dissatisfied teachers may undermine educational goals, and dissatisfaction with teaching conditions may lead to higher teacher absenteeism, stress, and turnover. (p. 56)

Whether it is the facilities of a school, the culture created amongst the staff, or the interactions that occur with students and leadership, many aspects of a school environment are included in studies focusing on teacher morale (Erichsen & Reynolds, 2020; Khan Farooqi & Ali, 2019; Uçar & Ipek, 2019).

Much of the literature investigates the specific influential factors of teacher morale. Sabin (2015) focused his study on the five constructs of "time, facilities, community involvement, student conduct, and teacher leadership" (p. 12–13). Sabin found that "time" was the most influential factor in teacher morale. The issue of teachers having too little time with an increase in job responsibilities and administrative tasks is echoed in many research studies (Lambersky, 2016; Okeke & Mtyuda, 2017; Wronowski & Urick, 2019). New policies and procedures are implemented regularly into daily job expectations for teachers, such as Professional Learning Communities (PLCs), meetings, professional developments, and especially as of 2020, virtual teaching. These types of responsibilities take time away from grading, planning lessons, and making parent contacts, often forcing teachers to complete these tasks outside of the normal workday. Wronowski and Urick's (2019) research showed that teachers complain of "decreased time for instruction due to accountability administrative tasks and worry and stress with emotional exhaustion as an endpoint" (p. 12). The expectations set within a school, the timelines set for tasks or goals, the policies that are developed, and the support rendered by administration are all encompassed in a school's culture, and all have a large effect on teacher morale and retention.

Not only are teachers losing time for the most pivotal parts of instruction, but also high-stakes evaluation systems are decreasing autonomy inside the classroom. Wronowski and Urick (2019) emphasized, "the loss of autonomy over their work combined with performance pressure of assessment and accountability policies led teachers to report increased stress and anxiety, longer work hours, and lower morale" (p. 3). In a study looking at elementary and secondary high-poverty schools, findings showed that "undue emphasis is placed on state-moderated testing and the other aspects of the curriculum are neglected," demonstrating a decrease in teacher

autonomy (Byrd-Blake et al., 2010, p. 469). Without a culture suitable for mitigating these stresses, or re-establishing teacher autonomy, many teachers lose sight of their love for their job. Ultimately, some teachers are no longer able to outweigh the lack of time and increased stress with the reasons they initially started careers in education. Wronowski and Urick (2019) stated, "teachers, due to accountability demands, can no longer access the moral rewards of teaching, connect meaningfully with students, meet students' needs, nor improve the overall lives of students" (p. 3).

Effect on Students

Researchers have also shown that school culture, or the pieces that contribute to it, can greatly affect student achievement (Abazaoglu & Aztekin, 2016; MacNeil et al., 2009). MacNeil and colleagues claimed, "healthy schools that promote high academic standards, appropriate leadership and collegiality provide a climate more conducive to student success and achievement" (p. 75). Overall, students are affected by the attitudes of teachers, the presence of administration, and the functionality of learning environments. Hinde (2004) found that "the culture of a school can be a positive influence on learning or it can seriously inhibit the functioning of the school" (p. 3). The learning environments within the classroom are affected by the environment of the school, which can influence student-learning opportunities.

Teacher turnover is also thought to influence student learning and achievement. Ronfeldt and colleagues (2013) suggested that even if more effective teachers replace those teachers who leave a building, there may be broader organizational issues that result from teacher turnover, still resulting in a negative effect on students' achievement. Their study found that though there may be cases where turnover helps student achievement, on average, it is harmful. Additionally, according to Bryk and Schneider (2002), student achievement can be predicted by the quality of

relationships between teachers and students, which is affected by teacher turnover. Specifically, a study conducted by Ronfeldt and colleagues (2013) found that teacher turnover had a significant, negative effect on student achievement in English Language Arts (ELA) and mathematics, "particularly harmful to the achievement of students in schools with large populations of low-performing and Black students" (p. 30).

As was the case when examining teacher morale, the theme of outside pressures and accountability measures affecting student development is present in the literature (Darling-Hammond, 2007; Erichsen & Reynolds 2020). For example, Erichsen and Reynolds emphasized that "high-stakes tests create significant workplace pressures and direct inordinate attention to tested topics, some would say at the sacrifice of students' broader emotional and social development, and leave many teachers constrained in their ability to teach creatively" (p. 2). Furthermore, Darling-Hammond researched the effects of NCLB on minority groups and those with disabilities, finding that NCLB "undermines the safety nets for struggling students rather than expanding them" (p. 252).

By focusing on the creation of classrooms in which trust and collaboration amongst students and teachers is encouraged, students are better supported. This focus begins with leadership, allowing teachers to feel supported in their creation of classrooms suitable for student growth. MacNeil and colleagues (2009) claimed, "when principals interact with the climate of the school in ways that increase Goal focus and build structures that support Adaptation, the climate will more effectively enhance learning for students" (p. 82). According to Rhodes and colleagues (2011), positive school cultures foster opportunities to create more collaboration among teachers and students, providing conduits to link teacher and student cultures together. Rhodes and colleagues discussed that if teacher and student cultures are in sync and receptive to

one another, successful integration of constructive learning strategies will be more effective. Conversely, if there is tension or unease, teachers will struggle with reaching their students. In their study, they found "the deliberate creation of a student culture was also paramount" to the success of a school (p. 88).

Mathematics Education Reform

Specifically, within the mathematics education community, reform extends well beyond NCLB and ESSA. Before these national reforms, changes within education had already altered teaching practices within the mathematics classroom. Historically, the standards-based reform that happened at a national level was boosted by NCLB, after which more than 40 states underwent changes in the K–12 mathematics standards (Klein, 2005). The multitude of changes that have occurred at the state level in Georgia's mathematics classrooms have left some teachers feeling as though they were chasing an ever-moving target. Here, I reflect on the historical changes in mathematics classrooms, a closer look at how these reforms played out in Georgia, and how teachers' daily experiences were affected by decisions well outside of their control.

Historical Summary

With Ronald Reagan's National Commission of Excellence in Education report, *A Nation at Risk: The Imperative for Education Reform* (1983) and the National Council of Teachers of Mathematics (NCTM)'s document *An Agenda for Action: Recommendations for School Mathematics of the 1980s* (1980), a call for change in education and within the mathematics classroom was echoed throughout the nation. The National Commission on Excellence in Education (1983) report stated that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (p. 1). This address, and low mathematics test scores, demanded a change in the

mathematics classroom. As a response, the curriculum in mathematics classrooms underwent a monumental change with the publication of *Curriculum and Evaluation Standards for School Mathematics* by NCTM in 1989 (Herrera & Owens, 2001). Additional NCTM publications of *Professional Standards for Teaching Mathematics* (1991) and *Assessment Standards for Teaching Mathematics* (1991) "rounded out the NCTM vision of mathematics in K–12 classrooms" (Herrera & Owens, 2001, p. 89). NCTM's 1989 publication was oriented towards five general goals for all students:

> (1) that they learn to value mathematics, (2) that they become confident in their ability to do mathematics, (3) that they become mathematical problem solvers, (4) that they learn to communicate mathematically, and (5) that they learn to reason mathematically. (p. 5)

Within these guidelines, changes were to occur with respect to content and to pedagogy. The content taught within the various grade levels were expected to include greater emphasis on connections to the real world and mathematical modeling, where students would make sense of mathematics using problem solving, communication, connections, and reasoning (NCTM, 1991). Only after the establishment of these four process standards was discussion of what had traditionally been considered mathematical content (Schoenfeld, 2004). There was also a push for greater integration of mathematics topics at the elementary level, editing topics from general arithmetic to ideas like geometry, patterns, and statistics (Herrera & Owens, 2001).

From a pedagogical perspective, teachers were expected to facilitate more activities that involved students discovering and constructing mathematical relationships. In their instructional strategies, teachers were encouraged to use various representations, group work, an increase in discussions and student writing, and context to "capture student interest in problems and as a framework or structure upon which to secure concepts and study them" (Herrera & Owens, 2001,

p. 89). Schoenfeld (2004) claimed that this pedagogical perspective was alien to teachers who had only experienced instruction in traditional ways and that this new way of pedagogical practice was challenging, calling for "both knowledge and flexibility on the part of the teacher, who must provide support for students as they engage in mathematical sense making" (p. 272).

From a national standpoint, the *Standards* set out by NCTM changed the expectations for how mathematics was to be taught in the classroom, but it was not entirely well-received. Herrera and Owens (2001) explained that "high stakes testing is often not aligned with the *Standards*, which further raises frustration as parents and teachers grow increasingly concerned about student performance on these tests" (p. 90). With numerous misinterpretations of what the *Standards* were asking of mathematics classrooms, NCTM published another document *Principles and Standards for School Mathematics* in 2000 that simplified the message by presenting five content standards that banded across all grade levels.

Individual states continued to draft their own content standards for material taught in each grade level. Because of the weight that NCLB placed on a school's performance in accordance with the standards taught, drafting the correct standards became even more important. Finn (2005) stated that the standards documents "provided the foundation for a complex, high-visibility, high-risk accountability system" (p. 5). Teacher development, resource creation, and most elements of educational reform were expected to be aligned to these standards. Finn went on to claim that "if that foundation is sturdy, such reforms may succeed; if it's weak, uneven, or cracked, reforms erected atop it will be shaky and, in the end, could prove worse than none at all" (p. 6). Thus, adopting the "right" standards became a pivotal decision made at the state level.

The Shifts in Georgia Standards

During the time period when much of the discussed national reform was underway, Georgia mathematics teachers were teaching the Quality Core Curriculum (QCC), which were developed in response to the Quality Basic Education (QBE) Act of 1986. This curriculum included standards for a variety of subjects, including mathematics, science, social studies, foreign languages, reading, language arts, fine arts, health, physical education, technology/career education, agriculture, and English speakers of other languages (Mitzell, 1999). With the delivery of NCLB, Phi Delta Kappa International conducted an audit of Georgia's QCC and found that it did not meet the national standards published by NCLB. In addition, conclusions from the auditors found that the curriculum contained more content than could realistically be covered in 12 years, and that "much of the curriculum focuses on acquiring knowledge and learning to apply that knowledge, but that students are not challenged to analyze, synthesize, or evaluate" (Jacobson, 2002, p. 2). Thus, another curriculum was introduced and rolled out.

With the call to reform the standards, Georgia policy makers published the Georgia Performance Standards (GPS) in 2005. The GPS curriculum aimed to cover less content more in depth than the QCC. Additionally, the GPS curriculum emphasized increases in student use of manipulatives, group work, technology, and hands-on activities (Obara & Sloan, 2009). Not only did the content standards shift amongst the grade levels in the roll out of the GPS curriculum, but content was also now taught under an integrated curriculum. Courses were named Math I, Math II, Math III, and Math IV, with each course integrating topics of algebra, geometry, and statistics (GaDOE). This content integration was drastically different than the traditional Algebra I, Geometry, Algebra II, and Trigonometry courses that were being phased out. For a few years, both curriculums were taught in high schools while the new subjects were phased in. With this

integrated content came much criticism, noting concerns for student understanding and achievement. A lot of resources and money were being poured into a curriculum that was unproven in the US context to be successful in the education of mathematics students. Yet, teachers attended professional developments, adjusted their lessons, and developed a love-hate relationship with the new curriculum (Badertscher, 2011). Six years after the introduction of this curriculum, State Superintendent John Barge stated that "integrated math was threatening on-time graduation for thousands of students" (Badertscher). Barge's speech was within the backdrop of another state curriculum change: the introduction of the Common Core standards.

In 2010, Georgia adopted the Common Core standards. With this standards change came the opportunity to step away from the integrated mathematics courses that had been in high schools for the past 5 years. According to the GaDOE, the Common Core standards would allow Georgia a seat at the table, improving upon the standards they had already set with the Georgia Performance Standards, but also having the benefit that "students could move from another state to Georgia and have already been exposed to the same rigorous standards we expected of our own students" (GaDOE, 2014). In a GaDOE survey of 1,019 high school mathematics teachers, nearly 84% claimed that they would rather teach math in discrete subjects (Algebra, Geometry, etc.) rather than the integrated style of the GPS curriculum (GaDOE, 2014). At the point of adopting the Common Core standards, State Superintendent Barge provided high schools with two options: the choice to return to discrete subjects, or to maintain a somewhat integrated approach in curriculum. The discrete subjects would return to Algebra I, Geometry, Algebra II, and Precalculus as the four main high school sequenced courses. The integrated courses would be Coordinate Algebra, Analytic Geometry, Advanced Algebra, and Precalculus (GaDOE). Schools were able to make their selections based on what would best meet the needs of their

schools, and mathematics teachers were back at the drawing board of lesson plans and subject guides, adjusting to the new curriculum. With this new adjustment came a call for new resources. High school teachers were not given extended notice for the upcoming change, which presented challenges to teachers. Additionally, teachers who were in schools that had chosen the integrated approach were struggling to find resources, being only one of three states that had chosen to keep integrated courses (Thomas, 2008). Mathematics test scores were at the forefront of the news again, with a high emphasis placed on student performance on the new curriculum.

When a large percentage of students performed unsuccessfully on the Coordinate Algebra and Analytic Geometry statewide exams, another curriculum change was introduced starting in the 2014-15 school year, the Georgia Standards of Excellence (GSE) (Latten, 2008). Courses could maintain their current status of integrated versus non-integrated, but each curriculum would come with standards changes and adjustments among courses. Some schools took this opportunity to go ahead and make the change back to Algebra I, following the crosswalk published by the GaDOE. Other schools maintained the integrated courses, adjusting the standards to fit the new GSE curriculum. Jeff Amy (2021) stated that few changes actually occurred in these standards change, and the motivation seemed to be to "whitewash the political unpopularity of Common Core" (p. 1). New standardized tests were rolled out, new targets were announced, and teachers worked to meet them.

As of 2021, another standards change in mathematics classrooms is on the horizon. Jeff Amy (2021) announced that "new Georgia math standards billed as a removal of the multistate Common Core standards and a return to teacher freedom are making their debut for public comment" (p. 1). Delayed a year due to the coronavirus, this roll-out of standards underwent a much more intense process than the previous GSE, including teacher input on standards

revisions. Superintendent Richard Woods stated that he was willing to make changes if there was substantial criticism. These standards are scheduled to be implemented in the 2023-24 school year.

With this most recent change in standards, five content reforms have been implemented in mathematics classrooms over the course of the past 20 years. Teachers who began their careers in the QCC curriculum could now be facing their fifth iteration of creating lessons, changing courses, and going through training for content. Some teachers may have experienced more changes, if their schools or counties chose to change paths at any time during the GSE curriculum options. While many teachers have become masters at adaptation and flexibility, the strain that moving targets and new expectations place on mathematics teachers is substantial.

Effect on Mathematics Teachers

Throughout each of these mathematical reforms, there have been common criticisms of how change was implemented within school systems. Such criticisms include lack of support with transition from one curriculum to the next, lack of resources to successfully implement curriculum in the classroom, and lack of teacher input.

In their study of three middle school teachers' experiences during the change from the QCC to the GPS curriculum, Obara and Sloan (2009) highlighted the importance of "providing sufficient time and other resources to enable teachers to understand the intent of new standards, examine the structure of new materials, reflect on student work, and try new approaches to teaching" (p. 369). Although the roll out of the GPS curriculum was celebrated as a departure from the QCC, there was little support from the state to facilitate the transition from a skills-based classroom to standards-based instruction. Obara and Sloan stated "essentially, local school districts in Georgia, and the teachers themselves, were charged with the full burden of the

implementation process" (p. 355). Teachers require support if they are expected to implement new curriculums in their classrooms. This support should come in the form of resources, time, and professional training at the state and local level. In the various standards reforms that occurred in the state of Georgia, these elements were not fully thought through or considered. John Perry (2010) reported that the lack of training played a toll on teachers of the new curriculum. He also stated that teachers felt like the pacing was unrealistic, specifically within the GPS curriculum. Teachers commented "you have to cover everything. It's a lesson a day…there is no time to get them to master each section" (page 3).

When there were resources, they did not always properly align to the current content being taught. This misalignment may have been from lack of clarity of the standards, inability for publishers to keep up with the ever-changing content or trying to use resources from previous curriculums. When the Common Core curriculum was implemented, Zubrzycki (2016) reported that

fewer than 1 in 5 [teachers] "strongly agree" that classroom resources are well-aligned to the standards and professional development is high-quality, and many are turning to online sites like Teachers Pay Teachers [see https://www.teacherspayteachers.com] to find materials for their classrooms. Just 18 percent of teachers strongly agreed that their textbooks and main curricular materials are aligned to the common core. Again, that's more than in previous survey years, but still represents just 1 in 5 teachers. (p. 1)

With turning to online resources such as Teachers Pay Teachers, there are two struggles that teachers face (a) teachers using their own money to provide resources for their classrooms and (b) once again, teachers using resources that might not properly align with the curriculum being taught in their classroom.

In response to being offered additional training during the Common Core roll out, more teachers reported that they had some, and did not want more (Zubrzycki, 2016). Judy Wurtzel, the director at the Schusterman Foundation, a company that had been focused on professional development of teachers, said that this response was not surprising, as early training sessions were explanatory or oriented around compliance. Zubrzycki quoted Wurtzel, "once you've heard that a few times, you don't need to hear it anymore…it's not that teachers don't want professional learning. It's that they want high-quality, job-embedded online opportunities connected to their work" (p. 2). When the Common Core was introduced, no expert was brought in to deliver content to teachers. Wurtzelt claimed "teachers are just as likely to be expert as someone who's been a math expert for 20 years" (Zubrzycki, p. 3).

With five different curriculums being implemented into mathematics classrooms over the course of the past 20 years, there have been many supportive tactics that were overlooked or that missed the mark. For reform to be successful in helping students achieve mathematical understanding and content mastery, the teachers need to be equipped to effectively deliver content to their students. Equipping teachers requires sound training from content experts, resources that align with the curriculum, and time to make adjustments and revise their instructional materials appropriately. Most of all, teachers require support from their colleagues, administration, and local representatives to be able to fully rise to the challenge of new curricular endeavors. These elements were not consistently supplied during the curriculum changes over the past 20 years for Georgia's mathematics teachers.

Summative and Closing Thoughts on School Culture

Throughout this chapter, I discussed what the literature reveals about school culture, including the importance of establishing a positive school culture, how to identify positive school

cultures, how to create a positive school culture, how culture affects teachers and students within a building, and specifically the effects of mathematics education reform on teachers. I have investigated these topics both in the general sense as well as in specific studies. It is essential to a school's success as a positive workplace, as well as a place of meaningful learning, for the culture to be one that is healthy and strong, as shown in the literature. It is also important to facilitate a supportive environment for mathematics teachers as they continue to grapple with curriculum changes. Within these two areas, it is pivotal to examine individual schools to either connect these themes to specific case studies or add to the literature about what is happening in schools with positive school cultures. My study provided an opportunity for an investigation into a particular school culture, and a particular mathematics department's experience.

During a time when focus has been placed on student performance and education accountability, there has been less emphasis on how to create supportive cultures within a school, where teachers can thrive in their careers. Additionally, there is a gap in the literature of specific case studies investigating the creation of a positive school culture. My experience teaching at Johnson has provided a context for me to establish my study's purpose and research questions. I have found that my experiences at Johnson, amongst what I have perceived as a positive culture and atmosphere created in a highly diverse and economically disadvantaged student and community population, is not typical within the greater context of other secondary school systems. Thus, it was important for me to conduct this research to add to the literature presented here, either by identifying similar findings as I have described, or by contributing a new and unique perspective.

CHAPTER 3

THEORETICAL FRAMEWORK

To situate my study within a theoretical perspective, I first outline my epistemological beliefs. Michael Crotty (1998) argued that at the onset of a research project, there are four elements to consider when a researcher is situating their study: methods, methodology, theoretical perspective, and epistemology. As epistemology establishes the way in which one views the world, it is essential to begin here. My epistemological views fall within the realm of social constructionism. According to Crotty, constructionism is "the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (p. 42). Meanings are constructed by human beings as they engage with the world they are interpreting. My study is set within a school, investigating the various aspects that form a culture within the building, and how the school culture influences mathematics teachers' experiences. As my study looks closely at the interactions that occur between administrators, staff, teachers, and students, I view the construction of meaning as dependent on the social interactions of these individuals. The construction of meaning in a social setting speaks to the concept of intentionality, or the interaction between subject and object in the construction of meaning, an important aspect of constructionism.

Within the umbrella of constructionism lies social constructionism, which more specifically focuses on the concept of culture. Within this epistemological stance, culture is essential for the functioning of society. Crotty (1998) emphasized that within social constructionism, "we depend on culture to direct our behavior and organize our experience" (p. 53). Additionally, social constructionism emphasizes creating meaning as a social process.

Crotty explained that social constructionism "emphasizes the hold our culture has on us: it shapes the way in which we see things (even the way in which we feel things!) and gives us a quite definite view of the world" (p. 58). This belief system is consistent with my position that the world in which I am a part of and the people that I interact with contribute to the way I construct meaning. Knowledge is situationally constructed, and depends on social, cultural, and historical contexts. As my study is about how a culture is created and how it influences the experiences of mathematics teachers, it is important that I remained true to my epistemological beliefs throughout the study.

With this brief outline of my epistemological backing, I now turn to describing my theoretical perspective for my study. As ethnographies are studies of culture (LeCompte & Preissle, 1993), anthropological research and development helped inform my study. In this chapter, I examine the advancement of anthropological research in the 20th century, including discussion of some key figures in anthropology: Franz Boas (1852–1942), Clifford Geertz (1926–2006), Ward Goodenough (1919–2013), and George Spindler (1920–2014). Within anthropology, I specifically discuss the branches of cultural anthropology and educational anthropology. I examine particular theories of culture that have developed out of anthropological advancement, including Boas's theory of cultural relativism, Geertz's theory of interpretive culture, Goodenough's concept of propriospect, and Spindler's development of cultural therapy. As symbolic interactionism is closely aligned with many theories of culture and ethnographic studies, I also explore the assumptions and beliefs that encompass this theoretical perspective. Lastly, I describe how I used these theories to create a lens through which to view and make sense of my study of school culture and mathematics teachers' experiences.

Brief History of Anthropological Research

Anthropology is "the study of human groups and culture, with a focus on understanding what it means to be human. Toward this goal, anthropologists explore aspects of human biology, evolutionary biology, linguistics, cultural studies, history, economics, and other social sciences" (Hill et al., 2000). Anthropological investigations may vary in their methods of collecting and interpreting data, or in their goals and aims, but are usually consistent in their general unit of analysis: groups of people. The development of anthropological investigations first began with primitive societies and has since shifted to investigate large-scale societies directly in the stream of contemporary history (Wolcott, 2008). In studying the advancements or development of societies, some areas of research include: the classification of human "races," the comparative characteristics of human anatomy, the history of human settlements, the classification of languages and the comparison of grammars, the comparison between "primitive" and ancient societies, or the historical development of humans' economy and industry (Hill et al., 2000).

At the turn of the twentieth century, Eriksen and Nielsen (2013) placed the state of anthropology as follows: "A number of ambitious theories of long-term social change had been advanced, based on historical sources or contemporary reports, or (more rarely) on first-hand observation" (p. 47). Franz Boas (1858–1942) was developing modern cultural anthropology in the United States, while Bronislaw Malinowski (1884–1942) and A. R. Radcliffe-Brown (1881–1955) were causing radical shifts in Britain's social anthropology (Eriksen & Nielsen). At the close of the 1950s, there were three major paradigms of anthropology: British structural-functionalism, American cultural and psychocultural anthropology, and American evolutionist anthropology (Ortner, 1984). It was also during this time that major theorists began to develop ideas that would establish new branches of anthropology. Ortner stated that these researchers

"emerged at the beginning of the sixties with aggressive ideas about how to strengthen the paradigms of their mentors and ancestors" by launching three sub-branches of anthropology: symbolic anthropology, cultural ecology, and structuralism (p. 128).

In the United Kingdom, Malinowski and Radcliffe-Brown's advancements in social anthropology focused on social structure, relationships among social roles, and bringing ethnographic research to the forefront. Wolcott (2008) summarized that the shift for British anthropology came with Radcliffe-Brown's recognition that social anthropology should be based on systematic field studies using scientific observations. He stated,

> such thinking not only marked the end of an era for the armchair types, it signaled in England what Radcliffe-Brown called "a new kind of ethnography", in which the field worker did not confine [herself or themselves] himself to simple description but sought to include in his account some sort of theoretical analysis. (p. 13)

A prominent development during this time was Malinowski's creation of participant observation (Adams, 2012). Adams claimed that Malinowski believed "only through participating in and observing everyday life over a long period of time that anthropologists could hope to begin to see and experience the world through the eyes of those whose lives one seeks to understand" (p. 340). Malinowski also stressed the need for learning and understanding the native language, rather than continuing to rely on interpreters. These ideas continued to create an atmosphere in which anthropologists were active in the field, rather than conducting research from afar. Adams summarized, "ethnographic methods became an enterprise that centered on immersion, language mastery, participation, and cultural interpretation" (p. 341). Franz Boas would proceed to teach these methods to his students in the United States. Malinowski's work, as well as that of Boas, are prominent in cultural anthropology.

Cultural Anthropology

Bodley (2011) stated, "doing cultural anthropology is a continuous adventure" (p. 3). Cultural anthropology focuses on cultural variation among humans, researching different groups of people around the world (Bodley, 2011; Eller, 2009; Hill et al., 2000). Eller (2009) emphasized that "anthropology is not just the study of humans, but the study of human diversity" (p. 2). While human diversity has always existed, the organized study of human diversity has not. Eller explained that in studying different groups of people, researchers first had to move past indifference to other societies, as well as moving past fear, hostility, or judgement of the "other." Cultural anthropology has developed considerably since its origination, becoming what is known as modern cultural anthropology in the 20th century, pioneered by Boas and Malinowski (Eller, 2009). Cultural anthropology attempts to gain a better understanding of other people and their cultures. Geertz (1973) explained,

> we are seeking, in the widened sense of the term in which it encompasses very much more than talk, to converse with them… Looked at in this way, the aim of anthropology is the enlargement of the universe of human discourse. (p. 13)

Also important in anthropology is the perpetuation of cultures from generation to generation. Cohen (2000) emphasized that "one of the most important tasks in the study of culture is to seek an understanding of the means by which social systems shape the minds of their members to assure the perpetuation of their cultures" (p. 83).

Cultural anthropologists have a diverse set of criteria for evaluating "good" research. According to Johnson and Hruschka (2015), some of these criteria include:

> (1) does the account vividly convey the situation? (2) is the description sufficiently rich? (3) is the narrative compelling? (4) do the local actors agree with the findings or

interpretation? (5) is the description accurate by some objective criteria? (6) is the

description consistent with all data? (7) are rival explanations or interpretations

considered? (8) do the methods appropriately capture the intended concepts and

variables? (9) are the methods reliable? (10) can the findings be replicated? (11) are the

findings generalizable (12) do the findings advance or challenge established theory? (p.

103)

Not all research projects will meet each criterion, but researchers attempt to use strategies to

create work that meets an appropriate subset of these criteria. Some of these techniques include

"extended fieldwork in a setting, crafting morally compelling narratives, triangulating

observations and data to minimalize bias, using systematic sampling of populations, and

planning study designs that can discriminate between different explanations for human behavior"

(Johnson & Hruschka, 2015, p. 103). Another method researchers use to meet many of these

criteria is an ethnography, which Wolcott (2008) called the "field arm of cultural anthropology"

(p. 12). Wolcott elaborated that "for the cultural anthropologist, ethnography has served as the

bedrock of the discipline, at once the foundation upon which the rest of it has developed and a

ballast so heavy as to keep anthropology from seeming to get anywhere" (p. 28). Within cultural

anthropology, two prominent branches that contribute to my theoretical perspective are cognitive

anthropology and symbolic anthropology.

Cognitive and Symbolic Anthropology

Cognitive anthropology studies how people conceive of and think about events and

objects in the world. According to Simova and colleagues (nd), cognitive anthropology "provides

a link between human thought processes and the physical and ideational aspects of culture" (p.

1). Additionally, it is closely aligned with anthropological linguistics and psychological

emphases of cognitive processes (Simova et al.). Researchers in this field focus on culture and meaning that can be accessed in the mind, rather than "in the material phenomenon of the system" (Henstrand, 2006, p. 9). Methods (such as folk taxonomies) are used to discern logical rules that cultures are based on, emphasizing "the rules of behavior, not the behavior itself" (Simova et al., nd). When studying culture, anthropologists in this field want to understand the organizing principles underlying the behavior they study, focusing largely on the language used and how it is interpreted (Henstrand, 2006). Franz Boas and Ward Goodenough (1919–2013) both made substantial contributions to this field, with their concepts of cultural relativism and propriospect (Eller, 2009; Henstrand, 2006).

Symbolic anthropology studies how people understand their surroundings, as well as how they interpret the actions and words of other members in their society (Des Chene, 1996). Anthropologists in symbolic anthropology attempt to identify the "key symbols" that individuals used as lenses to view their world (Eller, 2009). Eller claimed that this branch was "at least in part a reaction against Lévi-Straussian structuralism, which posited a single mental structure for all human beings and stripped away all of the particulars and context from anthropological analysis" (p. 69). This rejection of an objective reality is a key assumption in symbolic and interpretive anthropology. Emphasizing this concept, Cohen (2000) stated, "many anthropologists are agreed that in their daily lives people in all societies respond to cultural symbols rather than objective reality" (p. 83).

While cognitive and symbolic anthropology have roots in two distinct areas, researchers have shown that they have been used as complementary theoretical foundations, rather than contradictory. Colby and colleagues (1981) claimed,

if we, as anthropologists, can now manage to apply the ethnographic methods and

knowledge of mental functioning from cognitive anthropology to the cultural problems

and structural relations identified by symbolic anthropology, we are in a position to

achieve a higher level in our understanding of culture. (p. 442)

Using theories from both anthropological branches can help form a strong study, emphasizing

the strengths within each paradigm. From symbolic and cognitive anthropology, theories that

contributed to my theoretical perspective are Franz Boas's theory of cultural relativism, Clifford

Geertz's interpretative theory of culture, and Ward Goodenough's propriospect.

Franz Boas and Cultural Relativism

Franz Boas is often considered the father of modern cultural anthropology (Eller, 2009).

In 1886, Boas found himself in New York, holding two jobs (a scientific journal editor and a

teacher) before becoming a professor at Columbia University, teaching anthropology to students

until he passed in 1942 (Eriksen & Nielsen, 2013). His teaching and mentoring career was

substantial, teaching the first generation of American anthropologists, such as Kroeber, Benedict,

and Mead (Eller, 2009; Eriksen & Nielsen, 2013). Some of these researchers would go on to

make substantial contributions through their own anthropological studies, using Boas's theories

to guide their research. As such, Boas's influences and impact on the field did not only stem

from his own work. Speaking to his prolific career and significant influence, Darnell and

colleagues (2015) asserted, "Boas defies the boxes to which his successors have tried to confine

him, leaving a legacy to which contemporary students of humankind can respond and have

responded in multiple, not always commensurable ways" (p. xi).

In discussing Boas's view of culture, Eriksen and Nielsen (2013) stated, "Boas was

convinced that culture was extremely complex and that social theories were dependent on a firm

and reliable empirical base, rather than on neat armchair theories that reduced reality to schemata" (p. 49). Darnell and colleagues (2015) further explained that "Boas exemplified his work in the three independent modes of anthropological classification— the biological, the linguistic and the ethnographic or ethnological" (p. 14) Beginning with Boas's studies, American cultural anthropology evolved primarily through studies among native "North American Indian" and "Eskimo" groups[1] (Wolcott, 2008). These studies placed an emphasis on "cultural inventory, the diffusion of cultural traits, culture contact, and culture change" (Wolcott, 2008, p. 24).

Boas looked at culture as an all-encompassing entity, formulating a holistic approach to research. He was not interested in ranking cultures as "higher" or "lower," as had been the trend in anthropology. But rather, Boas placed an emphasis on "actually observing each single culture in maximal detail and each single part of a culture within the context of the whole" (Eller, 2009, p. 64). As such, Boas was one of the first people to reject an evolutionary approach to studying anthropology, the idea that a person is what they are biologically made of. Instead, he looked at the cultural and historical context of a person's life to influence who they are and who they become (Eriksen & Nielsen, 2013; Eller, 2009). Darnell and colleagues (2015) stated,

> Boas presents considerable evidence that such psychological character is inseparable from environmental, historical, and social context. He explores the purportedly primitive mental characteristics of fickleness of mind, inability of concentration, and lack of originality—in each case proposing adequate explanations other than inherent inferiority of mental process. (p. 10)

At the same time, Boas was also invested in individuality and giving individuals their due, emphasizing that cultures should be investigated individually, rather than creating any

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[1] Terms used by Wolcott.

generalizations or judgements (Darnell et al., 2015). This emphasis aligned with his use of

Malinowski's participant observation, adopting a native perspective when conducting research.

Darnell and colleagues (2015) stated that for Boas, gaining access to "the native point of view,"

was "the ultimate psychological phenomenon" (p. 14). This idea of exploring and researching

culture from the native point of view turned into what is now called cultural relativism, though

the term was coined after Boas's death. Boas's work with cultural relativism is known as one of

his greatest contributions to anthropology (Eller, 2009).

Boas's attempt to approach a research site as a part to a whole is mirrored in the theory of

cultural relativism, which states: "the relativity of the part of the whole…gains its cultural

significance by its place in the whole, and cannot retain its integrity in a different situation"

(Heyer, 1948, p. 165). Crotty (1998) explained, "culture is not to be called into question; it is not

to be criticized, least of all by someone from another culture" (p. 76). Anthropologists can only

understand culture based on one's own culture, from a native point of view. Thus, investigating

cultures of other people requires the use of ethnographic methods. These methods enable a

researcher to be situated within the culture of another for a long enough period so to be

enculturated, at least to some degree, seeing culture from a native perspective. According to Eller

(2009), cultural relativism is: **a fact** – there are many cultures in the world, and each has its own

notions of good/normal/moral; **a method** – to achieve understanding of another culture, we must

apply its standards of good/normal/moral, not our own; and **a theory** – humans make judgments

of good/normal/moral by reference to and relative to some standard of judgment.

Clifford Geertz and the Interpretive Theory of Culture

Within cultural anthropology, another prominent and influential figure is Clifford Geertz

(1926–2006) with his work in interpretative culture. Paul Shankman (1984) stated, "Geertz has

become an interdisciplinary figure and a major presence at the interface of the social sciences and the humanities. His articulate intellectual program and his ethnographic studies have found a wide and growing audience" (p. 261). In examining Geertz's influence on anthropological studies, it is important to describe Geertz's understanding of culture. In his work, Geertz attempted to realign anthropology more with the humanities rather than natural sciences, proposing an emphasis on studying meaning rather than behavior, seeking understanding rather than causal laws, and rejecting mechanistic explanations of the natural-science variety in favor of interpretive explanations (Shankman, 1984). Geertz did not question the ontological state of human action, he argued that the main point is not the existence of these actions, but their meaning (Schnegg, 2015). The meaning that he searched for is not created in the mind but is a public entity. Geertz (1973) claimed, "culture is public because meaning is" (p. 12). This publicness, if you will, is distinct from some cognitive anthropologists who believe culture is manifested in the mind. Geertz examined culture from a symbolic and meaning making point of view, focusing less directly on the behavior of individuals. Geertz (1973) stated,

> the concept of culture I espouse…is essentially a semiotic one. Believing, with Max Weber, that man is an animal suspended in webs of significance [she or they] he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not experimental science in search of law but an interpretive one in search of meaning. (p. 5)

Additionally, siding with the humanistic side of research over the scientific side, Geertz avoided systematic and scientific approaches to data collection, data analysis, and research conclusions. The mathematical methods of working with data, according to Geertz, are destructive to the ability of drawing interpretations. Interpretive methods differ from cognitive anthropological methods, which are systematic in nature. An interpretive approach is also

profoundly different than a functionalist's approach, which strives to identify universal truths. Interpretive anthropologists assume that culture is not an idea waiting to be discovered, yet a social entity waiting to be interpreted. Geertz (1973) explained,

> as interworked systems of construable signs (what, ignoring provincial usages, I would call symbols), culture is not a power, something to which social events, behaviors, institutions, or processes can be causally attributed; it is a context, something within which they can be intelligibly—that is, thickly—described. (p. 14)

One of the concepts that Geertz is most known for developing is the act of creating "thick descriptions," a notion that he borrowed from Gilbert Ryle. A thick description not only describes the physical behaviors or actions that are occurring but also the context in which they are occurring to provide additional meaning. As an example, Geertz described a scenario in which two boys are contracting their right eyelids. The difference between their physical actions do not exist, but the meaning behind their actions is entirely distinct. Geertz explained that one boy may have an involuntary physical twitch, while one boy may be winking at his friend, implying a meaning that is contextually applied by societal understanding. Geertz (1973) stated, "contracting your eyelids on purpose when there exists a public code in which doing so counts as a conspiratorial signal *is* winking. That's all there is to it: a speck of behavior, a fleck of culture and—*voilà*: —a gesture" (p. 6).

In examining the development of research, it is important to consider practice in addition to theory. Geertz (1973) asserted, "if you want to understand what a science is…you should look at what the practitioners of it do. In anthropology, or anyway social anthropology, what the practitioners do is ethnography" (p. 5). Within interpretive anthropology, Geertz emphasized three characteristics of ethnographic description: "it is interpretive; what it is interpretive of is

the flow of social discourse; and the interpreting involved consists in trying to rescue the 'said' of such discourse from its perishing occasions and fix it in perusable terms" (p. 20). Geertz believed that some ethnographic accounts could be more incisive than others. This belief differs from some anthropologists who are concerned with claims of "truth." As an interpretive anthropologist, Geertz was less skeptical of the "truth value" of claims that come from ethnographic research (Schnegg, 2015). Schnegg summarized Geertz's belief that "ethnographic understanding produces knowledge claims that are very much dependent on the standpoint of the ethnographer him- or herself," making the discovery of an objective truth impossible (p. 33).

Research in interpretive anthropology does not pick up where other studies leave off. But rather, it delves deeper into topics that have already been explored, approaching them from new perspectives. Schnegg (2015) claimed that "while law-like statements and generalizations across cases are key in the analytic tradition, understanding specific local cultural symbols and practices is the main goal of interpretative anthropology" (p. 33). As such, in the interpretive theory of culture, cross-cultural studies are unnecessary. It is therefore important to develop studies within specific cases, as every case is its own story. It is not that making a generalization across is impossible, but that "anthropologists tend to work in 'obscure' places and that data tend to be drawn from [in Geertz's words] 'exceedingly extended acquaintances with extremely small matters'" (p. 21) (Shankman, 1984, p. 262). Geertz (1973) argued that generalizations are in fact possible, because "social actions are comments on more than themselves; . . . where an interpretation comes from does not determine where it can be impelled to go. Small facts speak to large issues . . . because they are made to" (p. 23). Generalizations however should be carefully crafted. Geertz went on to explain that "what generality [thick description] contrives to achieve grows out of the delicacy of its distinctions, not the sweep of its abstractions" (p. 25).

In interpretive studies, researchers immediately incorporate a level of interpretation between the observer and the observed. Geertz (1973) claimed,

> the ethnographer "inscribes" social discourse; *he* [or she or they] *writes it down.* In so doing, he turns it from a passing event, which exists only in its own moment of occurrence, into an account, which exists in its inscriptions and can be reconsulted. (p. 19)

The ability to be entirely objective is essentially non-existent in interpretive anthropology. Thus, what becomes important is providing enough detailed data for the reader to be able to confirm a researcher's interpretations, as well as make her or his or their own. Every conclusion made from an ethnographic study is viewed as an interpretation of the data, with meaning imposed from the researcher's perspective.

One argument against the interpretive theory of culture is the lack of specificity and structure with its data analysis (Colby et al., 1981; Henstrand, 2006). Geertz (1973) instructed "analysis is the sorting out of structures of signification and determining their social ground and import" (p. 9). Nonetheless, he provided little guidance on how to do this "sorting." This emphasizes an important component of interpretive theory: there is no systematic way to be interpretive.

Ward Goodenough and Propriospect

Ward Goodenough (1919–2013) first introduced propriospect in an Addison-Wesley module called "Culture, Language, and Society." Propriospect is defined as "the totality of the private, subjective view of the world and its contents that each human develops out of personal experience" (Wolcott, 1991, p. 258). Rather than examining culture in the abstract or as a collective culture of a group of people, propriospect examines the unique culture that each

individual person creates in the various areas of their life, through experiences. A person's

propriospect is composed not just of a person's knowledge of a specific setting, but the collective

knowledge gained from each setting or context that person is a part of. This term describes each

individual's personal view of the world, which is highly subjective (Goodenough, 1971). In this

sense, we are all multicultural. Goodenough (1976) emphasized,

> When we look at process, then, we no longer look at societies only as wholes: but at
>
> individual people as learners of culture in the context of social interaction, as they pursue
>
> their various interests and try to deal with their various problems of living…From the
>
> standpoint of process, multiculturalism is, no longer a feature of complex societies alone
>
> but, as we shall see, is to be found in simple societies as well. (p. 4)

Wolcott (1991) argued that a person's propriospect cannot be researched in its entirety. In

that, Goodenough emphasized that the representation of an individual's propriospect is always

and only partial. Thus, using the concept of propriospect is not necessarily something to research

in and of itself, but rather a tool for understanding cultural attribution. Wolcott (1991) stated, "I

commend it as an enabling concept that calls attention and gives name to the idea that the

repositories for the elements of lived cultural systems are the minds of individuals competent in

those systems (p. 264). In other words, acquiring culture in its entirety is impossible: "Every

human acquires only one particular version covering some aspects of a limited number of

cultural systems" (Wolcott, p. 265).

The concept of propriospect offers a distinction between a group of people's cultural

pool, which Goodenough defined as "the sum of the contents of all of the propriospects of all of

the society's members," and what each member of that group knows on an individual basis

(Wolcott, p. 260). Although my study investigated the culture that a group of people share, I

employed the use of each individual's propriospect to piece together a view of culture from multiple perspectives.

As my study brings the use of these theories into an educational setting and looks at the topic of school culture, I also use ideas that have been developed through educational anthropology to back my theoretical perspective. Thus, it is important to discuss key developments in this field, as well as theories that have arisen in it.

Educational Anthropology

Contemporary educational anthropology is primarily the outgrowth of social and cultural anthropology (Eddy, 1985). While anthropological applications to education and child development date back to the late nineteenth century when anthropology first emerged as a science, one of the most prominent turning points in the field was the Stanford Conference of 1954 (Eddy, 1985; Labatiuk, 2012). Eddy (1985) discussed Margaret Mead's observation that, up until that point, "the interplay between anthropology and education had been largely "dependent upon personalities rather than any on-going institutionalized process of any sort" (quoted in Spindler 1955, p. 29)" (p. 91). The aim of the 1954 conference was twofold: it "partially summarized prior developments in the field but also set new directions for the future" (Eddy, 1985, p. 91).

The advancement of educational anthropology continued to grow after the Stanford Conference. Eddy (1985) summarized, "the post-World War II history of educational anthropology has developed within the milieu of rapid expansion and diversification within the discipline" (p. 94). Anthropology started being widely accepted at all major universities, and at the undergraduate level, it started becoming a regularly taught course to create a basis for graduate studies. Additionally, Spindler and Solon Kimball were appointed leading positions,

creating a concerted effort to train graduate students that would be experts in the field of educational anthropology (Eddy, 1984). With the expansion of the discipline, educational anthropology began to receive federal funding, creating opportunities for more developed curriculum and projects such as the Anthropology Curriculum Study Project, the Teacher Resources in Urban Education Project, and the Culture of Schools program. Continuous development and increased funding finally led to the creating of the Council on Anthropology and Education in 1970.

There are many motivating factors behind incorporating anthropological studies into education. Spindler and Hammond (2000) stated, "educators derive more from anthropology, as reflected in an understanding of cultural process and in the methodology of ethnography, than anthropologists generally understand or would have thought possible" (p. 47). More specifically, Labatuik (2012) discussed how "the anthropological analyses of educational processes and institutions, and their structure and content, may shed light on how society operates" (p. 50). These studies could also provide valuable information to those in instructional leadership positions. Studying schools by using anthropological methods could also give a "better insight into culture operational processes" (Labatiuk, 2012, p. 50). By drawing together anthropologists' aim (studying culture) and teachers' aim (pedagogical practices), educational anthropology could introduce some new ideas about how to navigate culture in a school setting. Labatiuk (2012) asserted, "teachers and educators would concentrate on understanding the peculiarities of teaching practices and searched for means to better use the acquired knowledge, while anthropologists would focus on deeper insight into the nature of school culture" (p. 51).

Additionally, the use of ethnography in education has been steadily growing since the 1950s (Spindler & Hammond, 2000). Ethnographies empower teacher researchers because it

"allows people within the educational community to tell and interpret their stories" (Spindler & Hammond, 2000, p. 44). Expanding on this idea, Spindler and Hammond emphasized that ethnographic research can "equalize power by involving teachers and other community members in the analysis of problems and solutions" (p. 44). The action of teachers becoming researchers has been an important transition in educational anthropology. Rather than outside anthropologists conducting research on schools, educators stepping into the researcher role and using anthropological methods is empowering for teachers. Spindler and Hammond asserted, "outside solutions disempower teachers, making them into transmitters of pre-packaged materials rather than inquiring professionals equipped to decide what their students need" (p. 44). Teachers as researchers encourage looking at their own environments from an etic perspective and to "participate in dialogues beyond their school communities" and "expand their roles as reflective professionals" (Spindler & Hammond, 2000, p. 44).

George Spindler and Cultural Therapy

One of the most prominent contributors to educational anthropology is George Spindler (1920–2014). George Spindler and Louise Spindler, his wife, have conducted many ethnographic studies within schools. Their most famous study was a 16-year ethnographic study in Germany on the educational system of towns nearby the college where Spindler was a professor (Spindler, 2000). In this study, they focused on teachers as cultural transmitters and concluded that they were a conservative influence despite that many of the older teachers had been replaced by younger teachers and the curriculum had been dramatically changed by federal reforms (Spindler, 2000). In the United States, they conducted a similar study, filming school staff to observe their teaching style and practices. By reviewing the film with the faculty, as well as examining the film from other countries, they revealed a much about the nature of the culture of

each school. The act of observing the other nation's processes revealed biases in the teaching practices of both "them" and "us," taking the form of "culture therapy" (Spindler, 2000).

Cultural therapy is defined by George Spindler (1999) as "the process of bringing one's own culture in its manifold forms…to a level of awareness that permits one to perceive it as a potential bias in social interaction and in the acquisition or transmission of skills and knowledge" (p. 3). Three categories of cultural knowledge are necessary in the process of cultural therapy: mundane cultural knowledge, self-other cultural knowledge, and submerged cultural knowledge (Spindler). Mundane cultural knowledge includes the knowledge that we use every day in normal situations, such as driving a car and knowing how to dress (Labatiuk, 2012). Self-other cultural knowledge "is something we use constantly to place ourselves in relation to others, and it directly affects our self-expression, as well as our feelings about ourselves" (Spindler, 1999, p. 467). Submerged cultural knowledge is a mixture of mundane and self-other cultural knowledge, raising awareness that many of our daily actions reflect our self-other cultural knowledge with underlying hidden assumptions about ourselves and those we interact with. Labatiuk (2012) contended that raising awareness in these categories would "help fight ignorance of one's own traits and build an adequate picture of relations with others" (p. 54).

Practicing cultural therapy has many benefits when conducting studies in education. Spindler and Spindler (1994) claimed, "cultural awareness, both of one's own culture…and of the 'other' culture is crucial for both students and teachers" (p. 30). They also explained that when the enduring self (that which transcends reality) is incompatible with the situated self (that which develops as a response to specific situations encountered by the person), it can result in destructive relationships or self-identity. Spindler and Spindler emphasized that "the underlying phenomena in all processes in person and culture relations is that basic cultural assumptions and

perceptions held by persons of different cultures seriously influence behavior, perceptions of behavior, and communication" (p. 30). Cultural therapy can be used to work with teachers to address their own cultures and confront how it may result in biases toward students in the classroom. For example, if a teacher was allowing bias into her or his or their classroom, the idea of cultural therapy would help the teacher realize that her or his or their intended aims of equal treatment were not being met. Spindler asserted that the teacher's illusions would have come from the teacher's background and social experiences, and the role of cultural therapy is to help teachers understand their actions in relation to other cultures. By increasing the awareness of their own cultural position, teachers can become more empowered to help their students (Spindler & Spindler, 1994).

Apart from anthropological perspectives, another theoretical framework that informed my study is symbolic interactionism. The theories and perspectives that I use from symbolic interactionism assisted me in navigating my inquiry into mathematics teachers' experiences throughout the project.

Symbolic Interactionism

LeCompte and Preissle (1993) suggested that the focus of symbolic interactionism is "elimination of the subject-object dichotomy, integration of self and society, analysis of the constructed nature of social meaning and reality" (p. 128). This focus aligns with my epistemological beliefs, as well as the proposal of conducting a study within an extremely social environment. Crotty (1998) explained the key concepts within the framework of symbolic interactionism according to Herbert Blumer:

- that human beings act toward things on the basis of the meanings that these things have for them;

- that the meaning of such things is derived from, and arises out of, the social interaction that one has with one's fellows;

- that these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he [or she or they] encounters. (p. 72)

Expanding on this list of assumptions, LeCompte and Preissle (1993) stated that "reality is not *fixed,* but changes according to the actors and the context" (p. 128). Similarly, Carter and Fuller (2016) claimed, "symbolic interactionists are often less concerned with objective structure than with subjective meaning—how repeated, meaningful interactions among individuals come to define the makeup of 'society'" (p. 932). The emphasis on individualism is important in symbolic interactionism. Rather than looking at the over-socialized view of the individual, people are viewed as "agentic, autonomous, and integral in creating their social world" (p. 932). Symbolic interactionism started out as a response to positivist approaches to examining society, and turned into a subjective theory of meaning making, emphasizing the use of language and symbols. Two of the most influential figures in symbolic interactionism are George Herbert Mead (1863–1931) and Herbert Blumer (1900–1987).

George Herbert Mead was a social behaviorist, a pragmatist, and a Darwinist (Quist-Adad, 2019). He rejected the limited ideas of radical behaviorists and founded social behaviorism as an alternative. For example, unlike radical behaviorists, Mead believed that there were large differences between humans and animals. For instance, he claimed that "humans' use of language and their ability to dynamically create social reality is what separates them from animals" (Quist-Adad, 2019, p. 70). He used ideas from pragmatism in his theory, such as the concept that reality is not an objective phenomenon, but rather an outcome of human relations

and the result of humans acting in the world. Additionally, he pulled ideas from Darwinism to explain his idea symbolic interactionism: humans seek a niche in the world in which they can adapt; they seek a niche in the social world; experiences that humans undergo that facilitate survival or adaptation will be retained (Quist-Adad, 2019).

Mead's contributions to symbolic interactionism were substantial, beginning with his ideas of how meaning was constructed in a social setting. Mead described society as "continuous, organized, patterned interactions among individuals" (Quist-Adad, 2019, p.73). Elaborating on this description, the process of socialization is defined as what individuals go through to learn the norms and values of society, which is ongoing throughout a person's life (Quist-Adad, 2019). Mead investigated significant gestures, which have shared meanings to people engaged in social discourse. Quist-Adad (2019) quoted Mead's claim that meaning derived from these gestures, which—

> become significant symbols when they implicitly arose in an individual making them the same responses which they explicitly arise, or are supposed to arouse, in other individuals, the individuals to whom they are addressed; whether external (between different individuals) or internal (between a given individual and himself) (Mead, 1934/1992, p. 49. (p. 70)

Mead consistently placed the emphasis on the use of language. Humans are consistently deriving and interpreting meaning from other people using language (Quist-Adad, 2019).

Herbert Blumer mirrored many of Mead's philosophical assumptions, bringing them into the more formal development of symbolic interactionism at the University of Chicago in the 1950s. Carter and Fuller (2016) stated, "echoing Mead, Blumer believed that the study of human behavior must begin with human association, a notion that was not common in the viewpoint of

early American sociology, which treated the individual and society as discrete entities" (p. 933). According to Blumer, meaning can be created in two ways: (a) meaning can be intrinsic and pragmatic ("this thing is a car"), or (b) meaning is an accretion of a person's feelings, sensations, memories, motives, and attitudes (Quist-Adad, 2019). Within symbolic interactionism, social interactions are key to understanding a groups of people's behavior patterns. By studying humans' interactions with others, and the social way in which they make meanings, a person can begin to have a deeper understanding of who and what she or he or they are.

Creating a Lens for my Study

Both anthropological theories and symbolic interactionism provide implications for conducting ethnographic research within a school. LeCompte and Preissle (1993) discussed that "ethnography traditionally is associated with a group of theoretical perspectives from sociology and anthropology," including symbolic interactionism in their list (p. 141). Recently, other theoretical perspectives have been used in ethnographic studies, all with the commonality of exploring the interactions of humans together in a group. But different theoretical perspectives affect how the ethnographic product is constructed (LeCompte & Preissle). There are two layers to my study: studying the school culture of Johnson High School and looking at mathematics teachers' experiences within the context of school culture. Elements from anthropological theories inform my study about the school culture, and I pull elements from symbolic interactionism to create a lens for examining teachers' experiences.

Through the Lens of Anthropology

A large emphasis has been placed on learning about education and learning by using anthropological perspectives in research studies. Blum (2019) insisted, "anthropology needs more attention to learning, and society, so consumed with schooling and learning, needs to hear from anthropologists" (p. 650). Approaching my study from an anthropological perspective provides an opportunity for understanding a culture that I am engrossed in every working day. It also provides guidance for navigating an anthropological study in a school setting. Bodley (2011) stated, "an anthropological view of culture can also help people understand their own culture in new ways that can reveal new possibilities for improvement" (p. 2).

A school's culture is constructed of many individual cultures, brought forward by the members within the school. Studying school culture could illuminate the ability of a school to blend these individual cultures together or examine tensions that might occur when individual cultures clash with one another. Spindler and Hammond (2000) emphasized,

> if school is seen from an anthropological perspective…then it is not surprising that the discontinuities between family and school cultures often disrupt the traditional function of schooling in profound ways. Anthropology can help teachers separate their personal cultural values from those of their students in order to see both themselves and their students more clearly. (p. 44)

As a teacher in a school with a diverse population and cultural backgrounds different than my own, anthropological approaches assist me in navigating those waters, so to speak. Taking ideas from cultural therapy, it is important to self-reflect upon my own culture, my own subjectivity, and consistently work on managing my own views of culture and the interpersonal relationships at the school I am a part of. As Labatuik (2012) emphasized, "anthropology can help educators

become more culturally aware, so that they can reflect and understand how culture creates and predetermines the conditions of their practice" (p. 50).

Additionally, remaining aware of the different cultures that make up part of the whole is an important element of cultural relativism. Cultural relativism calls for studying culture as a native, so as not to cast judgment upon a culture using an outside perspective. While being a native researcher comes with challenges, it is valuable for me to be engrossed daily in the culture I researched, which was easily accomplished based on my current position. Specifically, within a school, cultural relativism offers a great opportunity to emphasize voices that might otherwise be quieted. Spindler and Hammond (2000) stated, "the assumption of cultural relativism central to anthropology makes positive interpretations of diversity possible, and ethnography overlaps with narrative genres—such as oral history—which parents' and children's voices can be heard" (p. 45).

In addition to looking at a specific culture from a holistic perspective, the concept of individual propriospects also influenced the lens of my study. While collecting data from my participants, I remained cognizant that each person had their own personal culture and perspective that they brought to the study. Each participant's experiences inform their propriospect, and it is through this lens that they view the world around them.

Interpretive theory of culture also influenced the theoretical scope of my study. Using the interpretive theory of culture, I entered the project understanding that the ethnographic data I collected automatically came with a layer of interpretation between me and the observed. This insertion continuously reminded me that my investigations are subjective and that I bring my own interpretation and lens to the data collected. With this in mind, I attempted to collect substantial enough data to provide "thick descriptions." This aggregation of data will help

readers be able to form independent interpretations, while also providing support to my own interpretations (Henstrand, 2006, p. 14). Additionally, by blending processes from both cognitive anthropology as well as Geertz's interpretive theory of culture, I approached my study from an open mind, but an informed perspective.

Through the Lens of Symbolic Interactionism

There are also assumptions from symbolic interactionism that informed my study. Symbolic interactionism places a large emphasis on social interactions, the interpretations of those interactions made by individuals, and how people create meaning in a social manner. By keeping these ideas in the foreground while I conducted my study, I viewed the interactions of teachers in a particular way, focusing on how they interpret and create meaning using their surrounding school culture. As a school environment is social in nature, a setting is established that continuously facilitates interactions among teachers, administrators, and students (and family and community members). These interactions create opportunities for making meaning, which was important to examine in my project. By focusing heavily on individual's interpretations of their interactions, as well as the feelings and meanings associated with these interactions, I kept the lens of symbolic interactionism in the forefront of my study. LeCompte and Preissle (1993) listed the following as possible topics of investigation within the theoretical framework of symbolic interactionism:

1. what meanings—both overt and covert—do humans attach to behavior patterns and objects in their world?;

2. how do varying interpretations of meaning, expectations, and motivations affect human behavior?;

3. how does the process of constructing meaning take place?;

4. what symbols and rituals do humans create to structure their interaction? (p. 131)

With my investigations into teachers' experiences within the context of school culture, I focused heavily on how their interpretations of their surroundings affect their behavior, their interactions, and how they describe their experiences.

One of the more unique aspects of my study is that I conducted research at a site that is familiar to me. In addition to graduating from Johnson, I have taught there for more than 11 years. Thus, not only do I identify with my role as a teacher in the building, but I also stepped into the role of researcher. This layer of my study provided benefits as well as added layers of consideration that were necessary for conducting my study.

The Native Insider Researcher

Being a native insider researcher can be both helpful and challenging when conducting an ethnographic study. As stated earlier, there are many benefits to being native to the research site, as the goal of ethnographic research is to grasp it from the native point of view (Darnell et al., 2015; Shankman, 1984). In my collection of ethnographic data, which Geertz (1973) argued are interpretations, "and second and third order ones to boot," he also argued that "by definition, only a 'native' makes first order [interpretations]: it's *his* [or her or their] culture)" (p. 15). Being closer to and familiar with the environment—that is, being a native— makes taking the native perspective an easier transition when collecting data while simultaneously making it more troubling.

Traditionally, ethnographic research consists of studying the "other." Wolcott (2008), however, discussed the process of "coming home" that has started becoming more popular among ethnographic studies. He provided numerous examples, as well as resources for particular

methods for ethnographic research, both at home and abroad, and claimed "no matter how close to home, ethnographers study culture" (p. 240).

Nonetheless, there are also challenges that come with being an insider researcher. As Spindler and Hammond (2000) stated, "anthropologists may argue that an insider cannot see the hidden agendas in his/her own situation" (p. 45). This not seeing could be true especially within an educational setting. As such, it is important that I collected data adequate enough to provide thick descriptions that allow readers to not only see my own interpretations but also derive their own interpretations. Another challenge could be that "teachers are busy playing their role as emic members of the situation and may have trouble finding either the time or the perspective to observe their own work situation from enough distances to achieve an etic view" (p. 46). It is important that I put methods in place to remain cognizant of knowledge that I bring into the study and to try to separate it from the data and information that I collected. Spindler and Hammond emphasized, "while the ethnographer brings etic knowledge to the study, it must be laid aside, at least temporarily, to allow the emic viewpoint of the 'native to be recorded and understood" (p. 42–43). Strategies for how I handled my subjectivity are expanded further in Chapter 4: Methodology.

Summative and Closing Thoughts on Theoretical Framework

In my attempt to find an appropriate theoretical framework that resonated with my worldview and my topic of research, I investigated many different options. I researched critical race theory, cultural historical activity theory, and postmodernism, just to name a few. While I found value in each of these theoretical frameworks and learned about different ways to view the world, they did not fit with the way that I wanted to approach this project.

To navigate the waters of conducting research in a school where I have grown as a professional, I have chosen two theoretical frameworks as a backdrop for my research. Employing the use of cognitive and interpretive anthropological theories assisted me in understanding how the school culture of Johnson High School is organized and interpreting how the culture is created. By entering the research field with the mindset of providing thick descriptions, I continuously held myself accountable for providing enough detail and data for individual interpretations. Additionally, the use of symbolic interactionism assisted me in viewing how mathematics teachers construct meaning and describe their experiences within the context of their school culture. These theories helped me make sense of my surroundings as I navigated my native field as a researcher.

CHAPTER 4

METHODOLOGY

Designing a research project requires careful thought, preparation, and selection in the areas of methodological approaches and inquiry strategies. The academic world is extensive, with a plethora of theorists and philosophers describing potential avenues for research. Drawing from an attempt to understand meanings created within the socially constructed nature of reality, my study is naturally situated within the field of qualitative research. Differing from the predictive nature of quantitative studies, some goals of qualitative researchers include "understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (Merriam, 2009, p. 5). In this chapter, I discuss my approaches of conducting a research study using a qualitative ethnographic case study approach. Using ethnographic research methods allowed me to gather the rich data essential for describing the culture of a group of people. Case study inquiry enabled me to examine a phenomenon that is bounded to a single case. To guide my research design, I discuss the work and theories of methodologists who are instrumental in the fields of ethnographic and case study research, such as James Spradley, Margaret LeCompte, Judith Preissle, Robert Yin, and Robert Stake. I address my subjectivity as a researcher, as well as describe the principles, procedures, and assumptions in ethnography and case study inquiry, while applying these concepts to my study.

Ethnographic Case Study Methodology

Qualitative research is used in studies across various fields, including psychology, sociology, nursing, and education (Bogdan & Biklen, 2007; Merriam, 1998; Yin, 2018). Bogdan and Biklen (2007) provided five features of qualitative research: it is naturalistic, it uses descriptive data, it is concerned with process rather than products, it is inductive, and it is essentially concerned with meaning. Two common methodologies used in qualitative research

are ethnography and case study. Ethnographic studies are used to describe culture or aspects of culture (Bogdan & Biklen, 2007; LeCompte & Preissle, 1993; McCurdy et al., 2005). Case studies are used to create an intensive, holistic description and analysis of a single functioning unit that circumscribes the investigation (Merriam, 2009). Both methodologies require in-depth explorations of a phenomenon and produce rich descriptions of the subject at hand. An ethnographic case study blends the two methodologies together.

A case study was appropriate for my study given that, using Stake's (1995) definition of case study, I investigated the particularity and complexity of a single case: coming to understand school culture and teachers' experiences at Johnson High School. The nature of case study inquiry allowed me to use an in-depth, holistic approach to research how the school culture of Johnson is unique, or how it is common. Stake stated that in education, cases of interest are people and programs, and that "we are interested in them for both their uniqueness and commonality. We seek to understand them. We would like to hear their stories" (p. 1). In my study, I describe the stories of what is currently happening at Johnson High School.

As the focus of my research is school culture, it was also appropriate for me to use ethnographic methods. Ethnographic inquiry aligned with my theoretical approach to this study, using anthropological theories and symbolic interactionism (LeCompte & Preissle, 1993). By using ethnographic data collection methods, such as participant observation and in-depth interviews, I gathered the contextual data needed for providing "thick descriptions" (Geertz, 1973). Additionally, I used personal narrative and personal memory data to incorporate my own experiences as a mathematics teacher at Johnson High School into the study, detailing my extended time as a "native" in this field. By employing a blended design of case study and

ethnography, I used appropriate methods of each methodology for my study, while mitigating the limitations of each, to thoroughly meet the needs of my research purpose.

Ethnographic Inquiry

Ethnographic research originates from the field of anthropology (Bogdan & Biklen, 2007; LeCompte & Preissle, 1993; McCurdy, et al., 2005; Spradley, 1980; Wolcott, 2008). Discussing early attempts to define ethnography, Harry Wolcott (2008) challenged readers to "imagine a group of ethnographers meeting today and agreeing on *anything*, let alone a definition limiting ethnography to 'descriptive accounts of non-literate people'" (p. 11). Since then, while the definitions and approaches to ethnography continue to vary, there is a commonality throughout the research of a singular focus on culture. Research goals in ethnography include telling the story of a group of people, discovering and describing a culture, or discovering the cultural knowledge people are using to determine their behavior and construct meaning (LeCompte & Preissle, 1993; McCurdy et al., 2005; Spradley, 1980). LeCompte and Preissle emphasized "ethnography and its qualitative design variants provide educational and other social researchers with alternatives for describing, interpreting, and explaining the social world and the operation of educational phenomena within this world" (p. 28). Ethnography has become popular in education, with researchers working alongside teachers, as well as with teachers becoming the researchers (Spindler & Hammond, 2000). In the following section, I discuss the common assumptions, principles, and procedures used when conducting ethnographic research.

After reading literature about ethnographies, it is important to establish how culture is defined. McCurdy and colleagues (2005) stated that in ethnography, culture is "knowledge that is learned and shared and that people use to generate behavior and interpret experience" (p. 5). Additionally, they included Tylor's definition of culture "in its wide ethnographic sense" as "that

complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man [woman] as a member of society" (p. 3). The idea that culture should be investigated in its entirety is one of the assumptions of ethnography, including all aspects, beliefs, actions, and experiences of a society. Spradley (1979) specifically discussed three aspects of studying other cultures: what people do, what people know, and the things people make and use. LeCompte and Preissle (1993) emphasized these aspects, stating "ethnographers seek to construct descriptions of total phenomena within their various contexts and to generate from these descriptions the complex interrelationships of causes and consequences that affect human behavior toward and belief about the phenomena" (p. 3). To approach a study from this holistic perspective, it is important to consider the strategies ethnographers use to study culture from the native point of view and what ethnographic fieldwork looks like.

Ethnographic researchers set out to create rich descriptions of the culture being studied, generating a portrait of the complex interrelationships within a group of people (McCurdy et al., 2005). This endeavor entails exhaustive data collection to gather enough data. To establish one of the principles of ethnography, LeCompte and Preissle (1993) stated, "the strategies used elicit phenomenological data; they represent the world view of the participants being investigated, and participant constructs are used to structure the research" (p. 3). The emphasis here for ethnographic research is placed on the worldview of the participants, or as they are called from an anthropological perspective, the informants (McCurdy et al., 2005). Anthropologists are seeking to discover their informants' views of what they are doing, and the challenge for ethnographers is to "help their informants remember and express their cultural knowledge" (McCurdy et al., 2005, p. 11). This challenge speaks to another main assumption of ethnographic

research: that ethnographers are participating in cultural representation (McCurdy et al., 2005). McCurdy and colleagues explained that when ethnographers write about culture, they are acting as translators of the data collected, trying to capture the native's perspective.

Ethnographic research is largely dependent on the use of immersive fieldwork (LeCompte & Preissle, 1993; Spradley, 1979; Van Maanen, 2011). This immersion aligns with the second principle of ethnography that LeCompte and Preissle described: research strategies are empirical and naturalistic. Spradley (1980) asserted, "ethnographic fieldwork is the hallmark of cultural anthropology" (p. 3). As the goal of ethnography is to understand another life from the native point of view, it is important to conduct fieldwork that involves the study of "what the world is like to people who have learned to see, hear, speak, think, and act in ways that are different" (Spradley, 1980, p. 3). During ethnographic research, strategies are used to "acquire firsthand, sensory accounts of phenomena as they occur in real-world settings, and investigators take care to avoid purposive manipulation of variables in the study" (LeCompte & Preissle, 1993, p. 3).

One of these strategies is participant observation. Spradley (1980) stated, "by means of participant observation, you will observe the activities of people, the physical characteristics of the social situation, and what it feels like to be part of the scene" (p. 33). Participant observations serve two purposes: to engaged in activities appropriate to the setting, and to observe the various aspects of the situation itself. These observations span the entirety of ethnographic studies, going through stages such as broad descriptive observations, focused observations, and selective observations (Spradley, 1980). From these observations, researchers will collect a span of field notes in various versions to add to their collection of data within the ethnography. Additionally, Spradley (1979) emphasized the use of ethnographic interviews. Through interviews with

informants, researchers gather interactions with native speakers, witness a model for how to use the native language, and obtain sources of information regarding the native culture**.** While researchers might include other data collection method, such as artifact collection, most ethnographers incorporate some combination of participant observations and interviews (LeCompte & Preissle, 1993).

Overall, ethnography is not just about the product, "the book which tells a story about a group of people," but is about the process of studying human life, "the method in inquiry which leads to the production of the book" (LeCompte & Preissle, 1993, p. 1). The process of conducting an ethnography can be repetitive and ongoing. Figure 1 depicts James Spradley's (1980) ethnographic research cycle.
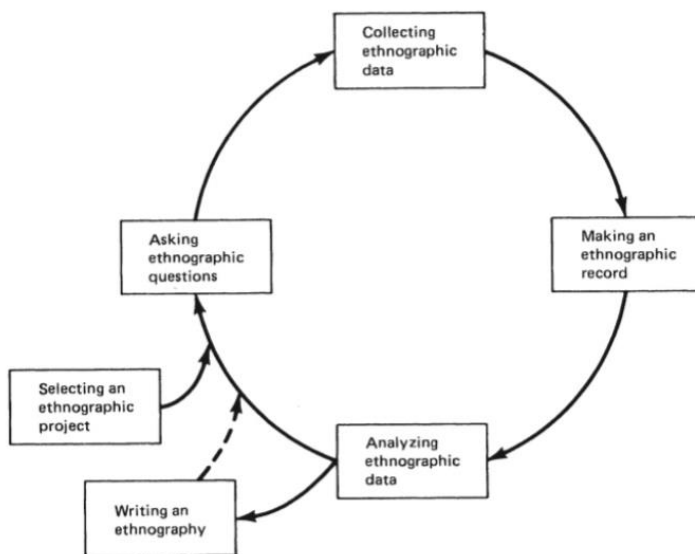
Figure 1. The Ethnographic Research Cycle (Spradley, 1980, p. 134).

Figure 1 reiterates the idea that participating in ethnographic research is cyclical, and that the emphasis is on the process. Upon reviewing the final product, it might even be necessary to re-enter the research cycle, as demonstrated by the dashed line. While this continuous cycle provides ample opportunity for creating a holistic study, it can also require a considerable

amount of fieldwork time and commitment. Thus, in addition to using traditional ethnographic methods, I also used elements from self-ethnography to incorporate my own story into the study.

To a certain degree, all ethnography is self-ethnography, as it reveals personal investments, interpretations, and analyses (Goldschmidt, 1977). Hayano (1979) argued that a connection between the researcher and the site can serve as an advantage for the researcher, as they have "feelings of empathy and emotions which insiders share from knowing their subjects on a deep, subtle level," emotions that outsiders cannot share (p. 101). While traditional ethnographies emphasize participant observation and being immersed in culture, this emphasis is distinctly different from conducting research when one is a member of the interest group. Adams and colleagues (2015) summarized three arguments for using self-ethnographic methods: (a) it is valuable to have cultural members telling their stories; (b) regardless of the methods used, traces of the researcher are present in all ethnographic work; and (c) it highlights the importance of a researcher's identities and the connection with similarly identified others. Conducting research on one's own group brings a level of intimacy and personal connection to the research. These arguments resonated with the scope and purpose of my project. Conducting a study at home is a personal experience for me, and it was impossible to separate myself completely, relegating my role as an "outsider" of the group. I used methods from ethnographic research to collect and analyze data from my informants, but I also used my own experiences and personal memory data as elements of self-ethnography to incorporate my story into the ethnographic research cycle (Spradley, 1980) to attempt to describe the full picture and breadth of my culture (Hayano, 1979).

Throughout my interviews and throughout my personal narrative, one form of data that I relied on was memory data. From the point of view of my informants, I relied on their memory

data throughout their interviews. This reliance is not uncommon in ethnographies, as relying on memory is often required in informant interviews. In addition to my informant's memory, I included my personal memory data as a type of data in my study. Chang (2008) claimed that in autoethnography, a form of ethnography where the researcher is the sole participant, personal memory data is a foundation to data collection, as "the past gives a context to the present self and memory opens a door to the richness of the past" (p. 71). Whereas Chang asserted that in most ethnographies, ethnographers avoid mixing in their personal memories with their data collected from the field, I used my personal memory data as a prominent part of the data used in this study. Though using personal memory data can be difficult to navigate, it allows the researcher to "tap into the wealth of information on self" (p. 72). By chronicling, inventorying, and visualizing self, I tapped into the fragments of my past 11 years at Johnson High School, which added to my database for my cultural analysis and interpretation (Chang).

There are challenges and critiques associated with conducting research "at home." Hayano (1979) stated, "cultural realities and interpretations of events among individuals in the same group are often highly variable, changing, or contradictory" (p. 101). Thus, it is important that my study included a variety of perspectives of Johnson's culture, weighing each person's perspective with the same level of importance and validity. Johnson's culture is composed of many people within it, and therefore should be researched using a variety of perspectives and experiences, not just my own. Another critique is that when researchers are in a familiar setting, observations might be overlooked with many taken-for-granted assumptions (Hayano). Nonetheless, I believe that using my own experiences added a needed layer to my research. Conducting ethnographic research with an already acquired group membership, my research provided a situation where the "multidimensional view of reality and the perspective knowledge

gained surely would enlarge anthropology's conceptual and epistemological foundations" (Hayano, 1979, p. 103). Therefore, by using methods from ethnographic and self-ethnographic inquiries blended into case study research, I developed a multi-layered methodological approach.

Case Study Inquiry

Case study inquiry is one of the most frequently used qualitative research methodologies (Yazan, 2015). Case study methodologists however differ both in their philosophical underpinnings and in their approaches to conducting research. Yazan (2015) stated, "researchers' views about the nature and production of knowledge, their epistemological bent in brief, underlie the inquiry project they conceptualize and operate" (p. 136). To fully understand which case study approach was appropriate for my project, it is important to understand the ontological and epistemological perspectives of expert researchers. Robert Yin (2018) and Robert Stake (1995) offer contrasting perspectives and approaches to conducting case study research. In this section, I discuss the philosophical views and methodological approaches of Yin and Stake.

Ontologically, Yin (2018) positions himself with a realist perspective, "which assumes the existence of a single reality that is independent of any observer" (p. 17). Realism is often taken to imply objectivism, with realities existing outside the mind and objective meaning existing outside of consciousness (Crotty, 1998). Epistemologically, this way of knowing aligns with positivism. Crotty (1998) stated, "from a positivist viewpoint, objects in the world have meaning prior to, and independently of, any consciousness of them" (p. 27). Positivism is often associated with empirical science and mathematical approaches, which typically lead to quantitative methods of inquiry.

Although Yin is forthcoming in where he aligns his research, he does not discount other approaches and perspectives to case study inquiry. In fact, Yin (2018) readily acknowledged that

case study inquiry could be applied to a variety of epistemological orientations and encouraged that "case study research can also excel in accommodating a relativist perspective—acknowledging multiple realities and having multiple meanings, with findings that are observer dependent" (p. 16). Nevertheless, he does continually orient himself toward a realist perspective, with acknowledgement that his work "may not offer comprehensive guidance on pursuing a relativist or constructivist approach" (p. 16).

In contrast to Yin's realist perspective, Stake (1995) aligns with the ontological perspective of relativism. Crotty (1998) explained that relativists believe that "different people may well inhabit quite different worlds. Their different worlds constitute for them diverse ways of knowing, distinguishable sets of meanings, separate realities" (p. 64). Emphasizing this perspective, Stake claimed, "the principle of relativity is strong in qualitative case study" (p. 103). He further explained that "the qualitative case researcher tries to preserve the *multiple realities*, the different and even contradictory views of what is happening" (p. 12). Epistemologically, Stake aligns with a constructivist paradigm, noting that "of all the roles, the role of interpreter, and gatherer of interpretations, is central" (p. 99). He distinctly separated himself from the realist paradigm by stating, "the aim of research is not to discover reality #1, for that is impossible, but to construct a clearer reality #2 and a more sophisticated reality #3, particularly ones that can withstand disciplined skepticism" (p. 101).

Yin and Stake also differ in their views on the nature of research. Yin (2018) maintained that there should be no stark differences in the approaches to quantitative case studies and qualitative case studies and emphasized "any contrast between quantitative and qualitative evidence does not set apart the various research methods" (p. 17). In contrast, Stake (1995) argued, "quantitative researchers have pressed for explanation and control; qualitative

researchers have pressed for understanding the complex interrelationships among all that exists"
(p. 37). He further differentiated "case studies seeking to identify cause and effect relationships
and those seeking understanding of human experience" (p. 38). These differing views align with
each researcher's epistemological beliefs, and impact how they approach case study research.

Stake and Yin have distinct ways of defining case study. Stake (1995) described a case
study as "a study of the particularity and complexity of a single case, coming to understand its
activity within important circumstances" (p. xi). Thus, case studies draw from "naturalistic,
holistic, ethnographic, phenomenological, and biographic research methods" (p. xi). The
assumptions implied here are open-mindedness and an all-encompassing approach to research.
Yin (2018) defined a case study as an empirical method that: "(1) investigates a contemporary
phenomenon (the 'case') in depth and within its real-world context, especially when (2) the
boundaries between phenomenon and context may not be clearly evident" (p. 15). This definition
is similar to Stake's, emphasizing the desire to understand a "real-world" case while claiming
that context is an important element in research. Yin also described particular features of a case
study, including coping with the "technically distinctive situation in which there will be many
more variables of interest than data points," benefiting from the "prior development of
theoretical propositions to guide design, data collection, and analysis," and that case study "relies
on multiple sources of evidence, with data needing to converge in a triangulating fashion" (p.
15). These features present a more structured approach to case study research. Yazan (2015)
explained that Yin

> presents a definitely detailed and comprehensive approach to the formation of the design
> with a highly scrupulous look at every step of the research process from construction of

the research questions to collection and analysis of data in light of prior theoretical

propositions to the reporting of the entire investigation. (p. 140)

Stake and Yin also have differing views on how to interpret data in a case study.

According to Stake (1995), it is important to provide narrative and "thick descriptions" in case

studies. He claimed, "ultimately, the final writing, for me, is more than aggregation of sections

but a shaping of them into a narrative that makes the case comprehensible. It sometimes takes on

a story quality" (p. 124). Not only should researchers offer their own interpretations of the case,

but the opportunity should be there for the readers as well. Stake claimed—

> a constructivist view encourages providing researchers with good raw material for their
>
> own generalizing. The emphasis is on description of things that readers ordinarily pay
>
> attention to, particularly places, events, and people, not only commonplace description
>
> but "thick description," the interpretations of the people most knowledgeable about the
>
> case. (p. 102)

To create this type of description, Stake emphasized building a close relationship with

informants over a long period of time. The data collected through observations, interviews, and

document analysis is centered on detailed descriptions of the situation to create a feeling of

"being there" (p. 63). He claimed that interviews are one of the principle uses of case study

research, creating the "main road to multiple realities" (p. 64). This contrasts with Yin's (2018)

viewpoint, who stated "case study research need not always engage in the thick description

(Geertz, 1973) or detailed observational evidence that marks many forms of qualitative research"

(p. 18). These differing views on the desired outcome of a study influences the procedures that

the two types of methodologists might employ.

Stake (1995) described three methods of data collection: observations, interviews, and document analysis. Yin (2018) incorporated a more exhaustive list, adding archival records, physical artifacts, and including participant observation. Both methodologists emphasized the use of multiple methods of data collection to assist with data triangulation, serving as protocols "which do not depend on mere intuition and good intention to 'get it right'" (Stake, 1995, p. 107). Yin emphasized that regardless of the researcher's ontological views, multiple forms of data are essential whether assuming a single reality or multiple realities. Additionally, Yin's options for data analysis, including pattern matching, explanation building, and logic models, emphasized his positivistic approach. Stake discussed two ways that researchers create new meanings about cases, "through direct interpretation of the individual instance and through aggregation of instances until something can be said about them as a class" (p. 74). For analysis, he included a logical procedure (correspondence and pattern), as well as a more interpretive form (naturalistic generalizations), which reiterates his own epistemological views. Other procedures of case study are discussed in later sections, as they apply directly to my study.

Focusing My Research

From my epistemological and theoretical perspectives, I naturally gravitate toward Stake's approach to case study research. Stake's emphasis on interpretive data and narrative description aligns with my own beliefs. Stake's constructivist approach also resonates more with the purpose of my study and the inclusion of ethnographic research methods.

Many of my research methods were ethnographic in nature. Nonetheless, I used the guidance of Stake's case study research to narrow the scope and assist me in completing the study within a smaller time frame than a classic ethnography. With regards to planning an ethnographic study, Spradley (1980) asserted that "ethnographic research involves an open-

ended inquiry; it requires constant feedback to give the study direction" (p. 34–35). Planning is done in the general sense, as adjustments must be made along the way depending on the events that occur and the data that are collected. While this openness allows freedom for editing pieces of the study if needed, it also lacks clear guidance. Stake (1995) suggested embracing this open-mindedness, but continuously tracking progress of the study with a system that maintains organization of the remaining tasks. In both ethnographic inquiry and case study inquiry, the first part of planning a study begins with the selection of the case (LeCompte & Preissle, 1993; Spradley, 1980; Stake, 1995).

Selecting a Research Site

I began the focus of my study with the research site as opposed to the research purpose. Using ethnographic research strategies, I was cognizant at the start of my study of the possibility that my research purpose and research questions might evolve while conducting field work. Wolcott (2008) stated,

the reputation for openness to inquiry, to set one's problem in the course of coming to know a field site, has remained one of the unique characteristics of ethnography. It is still okay to make a decision on the basis of *where* one will study, rather than having to specify *what* one intends to study. (p. 21)

Additionally, Stake (1995) stated, "it is not unusual for the choice of case to be no 'choice' at all" (p. 3). He described this freeing of choice as an "intrinsic case study," where the case selection is not dependent on answering a pre-determined research question, but where the interest originates "not because by studying it we learn about other cases or about some general problem, but because we need to learn about that particular case" (p. 3). This statement adequately captures my initial draw to studying Johnson High School. As previously stated, in

experiencing the environment of Johnson, I was drawn to investigate what, particularly, makes the school unique.

When I selected my research site, I also decided the scope of my study, which is important to do in both case study and ethnography (Spradley, 1980; Stake, 1995). My scope was in the middle of the continuum of macro-ethnography to micro-ethnography, as it was examining a single community (Spradley, 1980). It is also important to establish the bounds of the case (LeCompte & Preissle, 1993; Stake, 1995; Yin, 2018). In planning my study, I considered the time, location, and activity and determined what would be examined in the study (Stake, 1995). LeCompte and Preissle (1993) stated, "the investigator's initial task is to identify the populations or phenomena relevant to the group under examination and to the research focus being proposed or developed. This is done by establishing and defining its boundaries" (p. 59).

My case is Johnson High School, a public comprehensive high school located in an urban/suburban city approximately 60 miles northeast of Atlanta, Georgia. Johnson serves approximately 1,400 students from grades 9–12. School demographics are approximately: Asian/Pacific Islander 2%, Black 4%, Hispanic 76%, White 17%, and Multi-Racial 1%. As of 2019, approximately 76% of Johnson students receive free and reduced-price meals. The curricular opportunities for students include International Baccalaureate (IB) courses, Advanced Placement (AP) courses, dual enrollment courses, fine arts, career and technical education courses, honors mentorship, work-based learning opportunities, and other internships. Johnson is an authorized IB World School offering the IB Diploma Programme. My study of Johnson is designed to be a story investigating the successes of the school. As such, it is important to reflect on my own subjectivity and positionality at the onset of the study.

Reflecting on My Subjectivity and Positionality

As a researcher, it is paramount that I approach my study with an open mind, that I understand my own subjectivity and positionality, and that I develop strategies for navigating the terrain of conducting research at a place familiar to me. McCurdy and colleagues (2005) stated that the introduction of ethnographer bias can occur consciously or unconsciously. As such, it is sometimes difficult to diagnose, and it is important to address it at the onset of a research study. One strategy that McCurdy and colleagues suggested for managing subjectivity is to be explicit about my own personal and cultural backgrounds and perspectives that might affect my investigation.

I describe myself as a White, middle-class woman educator and perpetual student. I was raised in a household that consistently emphasized the value of hard work, with two full-time working parents employed in the food and retail industries. Doing well in school was an unspoken expectation, as was obtaining a part-time job and learning about the accomplishments that hard work can earn. There have always been certain opportunities afforded to me throughout my life, made possible by a variety of factors including my parents' work ethic and support, as well as my passion and desire to consistently push my limits and reach for next steps. I have never had to undergo true hardship while being reared and have never had to imagine what it would be like to long for a better, or different, education. Upon graduating high school as salutatorian, I attended The University of Georgia for my undergraduate mathematics degree and graduated cum laude (I also completed a mathematics teacher certification degree program). Upon graduation, I obtained a teaching position at Johnson High School, my alma mater. A year later, I attended Georgia State University to receive a Master's in Mathematics Education. A few years later, I decided to return to Georgia State to pursue a Ph.D. in Teaching and Learning with

a concentration in Mathematics Education, continuing to thrive under the prospect of broadening my professional knowledge and pedagogical skills. While I attribute much of my academic success to the work ethic and passion for learning instilled in me throughout my childhood, I am aware that the opportunities to consistently broaden my academic resume are not to be taken for granted. I have never had to worry about not having the resources required to fully thrive in an educational system or pursue higher education. It is essential to my being an in-depth and successful researcher to be cognizant of how my upbringing affects my subjectivity.

In addition to my personal experiences, it is important to reflect on my professional experiences. Over the course of my 11 years at Johnson, I have taught almost every mathematics course offered, including various levels within each course, and have taught under three different state curriculums. For the past 5 years, I have been the mathematics department chair, affording me the opportunity to grow as a leader in the school. In this role, I have worked closely with other school leaders, as well as our administration, particularly our curriculum assistant principal. In the 2020-21 academic year, I became a part-time instructional coach, which increased my leadership role even more. While still teaching three classes, I also work alongside Johnson's other instructional coach to develop curriculum with teachers, my involvement particularly focusing on mathematics, science, and ELA courses. The other instructional coach and I develop professional learning lessons, provide instructional support for virtual learning, and work with new teachers to identify areas for growth. These opportunities have afforded me a unique position at the school. While working with administrators and other instructional leaders, I still maintain my role as a teacher in the building. In doing so, advocating for teacher needs and being a teacher voice has become an important part of my job.

It is important to be aware of these subjectivities from the beginning and incorporate them in my study. LeCompte and Preissle (1993) explained, "ethnographers present both their initial assumptions and their subjective reactions to events…Ethnographers address the issue of researcher subjectivity by trying to incorporate it…Other researchers (unlike ethnographers) approach their subjectivity by trying to expunge it" (p. 45). Following another suggestion from McCurdy and colleagues (2005), I also included information about myself and the nature of my research in my final study report, providing readers the opportunity to judge any potential bias and influence on the presentation of my data. By incorporating memory data and personal narrative in my report, I have provided readers with a level of transparency of my role at the school, and within the study. The final strategy presented by McCurdy and colleagues is to show the written ethnography to my informants, a method used by James Spradley, a strategy I used as discussed further in my qualitative reliability section.

My level of involvement at Johnson affected the way I approached conducting research there. At times, my level of familiarity inserted difficulties into the research process. Roulston (2011) emphasized that when working in a field that is familiar to a researcher, "it may be difficult to discuss research topics and ask questions—since both interviewer and interviewee rely on shared knowledge and understandings" (p. 99). Additionally, by conducting research at home, McCurdy and colleagues (2005) discussed that "you will forgo a typical ethnographic experience, entering a cultural setting as a total stranger" (p. 22). And (as mentioned earlier), Hayano (1979) asserted that researchers at "home" might miss certain intricacies of observations by taking levels of familiarity for granted.

Nevertheless, there were also benefits to conducting research at a site that is familiar to me. By working with informants who I already knew, "it eases the problem of generating initial

rapport and trust with the informant" (McCurdy et al., 2005, p. 22). This trust was important in ensuring that administrators, staff, and teachers share honest information throughout the study. Additionally, Spradley (1980) found "one reason anthropological fieldwork requires many months of fulltime involvement is that the ethnographer must deal with all the responses to his or her presence" (p. 48). As a researcher that is native to the site, my informants seemed to have more freedom to act naturally without the obtrusiveness of an outside observer. Hayano (1979) also argued that sometimes, the coordination of conducting research at a familiar site is easier simply because of the connections and relationships that are already established. I found this sentiment to be true when creating opportunities for data collection.

Throughout my study, I remained cognizant of the ways that my subjectivity might influence my approaches to conducting research. I continually reflected on my own research process, documenting my reflections in my field notes and personal journal.

Designing My Study

In the following sections, I describe the remaining details of my study at Johnson High School, including participant selection, methods of data collection and management, and methods of data analysis, and methods of data representation. I include details on addressing ethical concerns when conducting research on human subjects, as well as how I addressed qualitative "reliability" in my research study. I conclude with addressing the limitations and delimitations to my study.

Participant Selection

My study has a distinct unit of analysis: the school as a community. The boundaries for this unit are naturally created, as they "exist independently of researcher interest and are formed, or at least recognized, and confirmed by their constituent participants" (LeCompte & Preissle,

1993, p. 61). Thus, I selected participants within this unit of analysis. While in classic ethnographies choosing a sample is often resolved by considering all participants within a population, as more ethnographic studies move into the school building, other participant selection strategies have been used. Researchers have begun specifying subgroups within the population as the proposed unit of analysis, and the subgroups often are not homogeneous or culturally discrete (LeCompte & Preissle). The selection of participants in an ethnographic study might vary from the selection in other forms of inquiry. LeCompte and Preissle stated,

> ethnographers view selection as recursive; it is dynamic, phasic, and sequential (Zelditch, 1962) rather than static. Their concern with selection and sampling does not end with the creation of the initial group of study participants, events, or traits. …They also use sampling methods to expand the scope of the study, refine the questions or constructs under investigation, or generate new lines of inquiry. (p. 65)

With research regarding the creation of school culture, my research participants included a representation of individuals who contribute to a holistic view of the school. LeCompte and Preissle discussed a criterion-based selection of participants, where the researcher "creates a list of the attributes essential to the selected unit and proceed to find or locate a unit matching the list" (p. 70).

For my study, I identified the following essential attributes to the discussion Johnson's school culture: school leaders, staff members, former students, and teachers. I collected a sample of participants from each area. Stake (1995) stated that when selecting data sources, the researcher should "have a connoisseur's appetite for the best persons, places, and occasions. 'Best' usually means those that best help us understand the case" (p. 56). I used criterion

sampling in my participant selection, starting with a list of the different identified attributes, and then choosing participants within each of those criteria.

First, my participants included representation from the subgroup of school leaders. Two of my participants were Johnson's current principal, Jonathan, and the current curriculum assistant principal, Amy. Jonathan is in his seventh year at Johnson, and in his second serving as principal. Amy is in her first year at Johnson in the role of curriculum assistant principal, coming from two previous administrative roles. Additionally, two of my participants were former administration members at Johnson. The former principal, Stan, served as Johnson's principal for 10 years. The former curriculum assistant principal, Cathryn, served at Johnson for 13 years. These four participants served as participants satisfying the criterion of school administration. I selected these four participants because of their roles in the school, and to give a variety of perspectives in how those roles serve the needs of the school. While each member of the administrative team is important in the operations of the school, as discussed further in Chapter 5, these participants were selected as the sample so to gain the perspective of culture from an administrator's viewpoint.

Additionally, I selected participants within the subgroup of staff who are specifically in roles of leadership support. One participant, Bryan, served in the role of administrative assistant. Bryan was a member of Johnson's staff for 7 years, with 3 of them spent in the role of administrative assistant. Another participant, Tana, served as an instructional coach. She spent a total of 14 years teaching at Johnson, serving as instructional coach for the last 4 years. Other participants from the staff who were selected include Bethanie and Julie. Bethanie serves as the attendance secretary in the front office and has just finished her eighth in that role. Julie serves as the media specialist at Johnson, finishing her fifteenth year in that role. Before that, she taught at

Johnson for 6 years. These participants were selected to represent a variety of perspectives in the school. (Originally, I intended to select a counselor as well, but neither counselor was able to commit to the study.)

The third subgroup of participants were former students of Johnson. I originally intended to select three participants. Unfortunately, after sending out numerous recruitment emails, I only had two students commit to the study. Faith and Gaby both graduated from Johnson in 2021. Faith is currently a student at Georgia Tech, and Gaby is currently a student at Lanier Tech while working at a dentist's office.

The second aspect of my study focused specifically on the mathematics department, establishing a secondary unit of analysis. This unit is also represented by a naturally bounded group, the mathematics teachers. Thus, these teachers made up my teacher participants in the study. I asked teachers in the mathematics department about their total time teaching and their experiences at other schools. From there, I selected six teachers who best helped me understand my case (Stake, 1995). I included three men and three women teachers, varying in their total years of teaching experience, including those with teaching experience outside of Johnson and those who have spent their entire teaching career on site. Additionally, I contributed data to the study, thus making me a participant as well. I just finished my 11th year of teaching, all of which have been at Johnson. Currently, I teach Geometry and IB Mathematics. John teaches Algebra II and IB Mathematics and had been at Johnson for 6 years, teaching a total of 10 years in his career. Katie teaches Geometry and Accelerated Geometry and is in her 4th year at Johnson, the only school she has taught at. Rene teaches EL Algebra I, Algebra I, and PreCalculus. He is in his 9th year of teaching and in his 4th year at Johnson. Scott teaches Algebra I, Honors Pre-Calculus, and IB and has only taught at Johnson, he is in his 8th year. Shannon teaches Algebra I

and Honors Algebra II and just completed her 3rd year at Johnson, out of 11 years total. My final

teacher participant was Tina, who is in her 8th year at Johnson, teaches Geometry, and has taught

for a total of 10 years.

I began my selection process by sending an invitation to the study via email (Appendix

A), a consent form (Appendix B), and a recruitment letter detailing the specifics of the study

(Appendix C). I targeted specific workers in each field, based on information I received about

years of experiences. Because the counselors declined to participate, those were removed from

the study. I did have one additional mathematics teacher show initial interest, but he was unable

to commit to the time commitment and therefore declined to participate. Once my participants

were selected, I began the process of data collection.

Data Collection and Management

Data collection describes the process of gathering information from my site and my

informants (participants) who assisted me in my investigation. LeCompte and Preissle (1993)

stated, "a hallmark of qualitative and ethnographic research is eclecticism. The complexity and

variability of human life in its natural habitat mandates that those who study it must collect rich

and diverse data on whatever they study" (p. 158). Similarly, Stake (1995) stated, "all

researchers have…the privilege to pay attention to what they consider worth of attention and the

obligation to make conclusions drawn from those choices meaningful to colleagues and clients"

(p. 49). In this section, I describe my data collection methods, which include participant

observation, interviews, and participant artifacts. I also used personal narrative data in the form

of memory data, stories, and reflections on my experiences while at Johnson.

Before beginning any data collection, I first obtained approval from the Institutional

Review Board (IRB) at Georgia State University as well as permission from the district office

that oversees Johnson High School to conduct research at the school level. I also obtained

permission from the school principal and the assistant superintendent. I ensured that each

participant had copies of the informed consent form and recruitment letter and reiterated that

they could withdraw from the study at any time if they so choose.

My primary method of data collection was conducting interviews with each of my

participants. I intended to conduct two interviews with each participant, an initial semi-structured

interview and a second interview. With five of my participants (Stan, Cathryn, Amy, Faith, and

Gaby), I was unable to arrange a second interview that was conducive to all schedules. For each

of my remaining participants, I conducted two interviews. The purpose of these interviews was

to collect information about how individuals within the school describe the school culture, and

the creation of the school culture, as well as discussions of their own experiences within the

school culture. My established rapport with the informants assisted me in the first stage of

ethnographic interviews (Spradley, 1979).

Depending on the subgroup that each participant was a part of the initial semi-structured

interview included slightly varied questions (see Appendices D, E, and F). First, I sent out a form

to establish participant availability and setting preferences, and then I began scheduling

interviews. In each interview, I used the interview protocol tools shown in the Appendices to

proceed through the initial interview. I used different individual tools for those in leadership

positions (Appendix D), those in staff or teaching positions (Appendix E), and former students

(Appendix F). I found it appropriate to use a semi-structured interview for the initial interview,

as it used scripted questions, as well as providing opportunity for open discussion that could

initiate new questions or follow-up probes based on participant responses (Roulston, 2011).

While using this tool, I worked to remain cognizant of opportunities for participants to freely

share their thoughts or experiences, as well as following their lead to new topics when applicable

to gain a deeper understanding of their perspective on Johnson's school culture. I recorded each

interview using an audio digital recording device. Upon completion of each interview, I took

notes of the setting, as well as any initial ideas for follow-up questions that needed to be included

in the second interview. This process allowed me to include more than just the written word of

transcripts when analyzing my data. I then self-transcribed each interview as soon as I was able.

The process of transcribing my own interviews allowed me to become familiar with the data and

provided an opportunity for initial reflections and analysis.

Upon conclusion of each interview transcription, a copy of the full interview transcript

was provided to the participant via email, along with a request to review the transcript (see

Appendix G). Participants were asked to make note of any desired changes to the interview,

allowing them the opportunity to edit, elaborate, delete, or emphasize any particular part of the

interview. This process allowed an opportunity for participants to act as member checkers,

contributing to the validity of the data and preserving their own perspective. I reassured them

that they might have feelings of reservation or self-consciousness upon reviewing their own

words, but that I value their opinion and perspective as an important contribution to the project.

In this email, I also requested any documents or artifacts that might help depict the participant's

description of Johnson's school culture.

Upon receipt of the edited initial interview transcript, a second round of availability and

setting preference requests was sent out, and second interviews were scheduled. I asked

participants to bring any artifacts they had identified to their second interview. Questions in the

second interview were written to add a different perspective of data, focusing on information

about a participant's growth as an educator, see Appendix H and Appendix I for the interview

tools. The second interview also provided an opportunity to elaborate on any additional responses to the first interview, as well as an opportunity to discuss the participant artifacts. Again, I took notes upon the conclusion of each interview to preserve details of the interview, and each interview was audio recorded and self-transcribed. A copy of the second interview transcript was provided to participants with a similar request to make changes to the interview as desired.

It is important that I developed good questions for my interviews, with a variety of descriptive questions, "eliciting a respondent's representation or depiction of some aspect of the culture or world," structural questions, which can generate the constructs that informants use in depicting their worlds, and contrast questions, useful in "eliciting the meanings respondents attach to and the relationships they perceive among the varying constructs they use" (LeCompte & Preissle, 1993, p. 171). Additionally, Stake (1995) asserted that the goal in interviews is not to just get an answer, but to elicit a "description of an episode, a linkage, an explanation" (p. 65). With careful thought and intentionality in my interview protocol tools and choice of questions, I tried to create an atmosphere in which the informants feel comfortable and open about their description of Johnson and their experiences there. Additionally, by allowing participants to select their setting preferences, I served two purposes. First, it allowed the participant to feel more comfortable. Second, it allowed me to see a contextual setting for each participant, perhaps adding to the data collected. For former students, I scheduled the interview at a location of their choosing, for similar reasons. One student chose to meet via Zoom, as she was away at college. The other chose to meet at a local coffee shop.

My next method of data collection was self-ethnographic in nature. Having been engrossed in this environment for years, I included my personal memory data as an element of

this study. I constructed narratives from my time at Johnson to supplement my observed and collected data from other participants. I pulled from personal journal entries, memory data, my own experiences with individuals, and reflections on my time within the school. Adams and colleagues (2015) claimed that "by being personally, emotionally, aesthetically, and narratively connected to a cultural group or experience, autoethnographers may take more responsibility for and greater care in representing themselves and others" (pp. 18–19).

My last method of data collection was participant observations (Spradley 1980). As discussed earlier, participant observations allowed me to engage in contextual events while observing members of the environment. My observations included faculty meetings, professional development sessions, and informal interactions with administrators, faculty, and staff. During selected observations, I took notes of interactions among staff, responses to administrators, and non-verbal cues that added to the collective atmosphere of the setting. While valid and important forms of data, these observations ended up being a secondary emphasis for me in the realm of data collection. I found that as I proceeded through the data collection process, my research questions began to transform to fit the data I was collecting. The focus began shifting more intently on the perspectives of my participants, which was emphasized during participant interviews.

Additionally, I had intended to participate in classroom observations of teachers as well, but once engrossed in the study, I did not feel this was necessary. Much of the content described and discussed during the interview process focused on the participant's own perspective and views of their environment, their feelings, and their experiences. I did not feel that it was necessary to additionally record observations of specific teachers, as this would impose my own interpretation of their experiences. While I recognize this could add a limitation to my data as

there was conferring of what people say they do versus what they actually do, it was more important for my data to emphasize participant perspectives.

Next, I discuss my process of data analysis.

Data Analysis

Data can be analyzed using multiple types of processes and procedures to generate a deeper understanding of the data and provide as much insight as possible about a research topic. Specifically, within ethnographic research studies, there are a variety of processes used to analyze ethnographic data, including the use of domain analysis and taxonomic analysis, procedures developed by Spradley (1979).

Spradley (1979) claimed that "an informant's cultural knowledge is more than random bits of information; this knowledge is organized into categories" and emphasized that the goal for ethnographic analysis is to "employ methods of analysis that lead to discovering this organization of cultural knowledge" (p. 93). Domain analysis and taxonomic analysis are two procedures used to help make sense of cultural knowledge by using subsets as a method of organization. According to Spradley, a domain analysis "involves a search for the larger units of cultural knowledge called domains," while a taxonomic analysis "involves a search for the internal structure of domains and leads to identifying contrast sets" (p. 94). These different types of analysis could be used to organize important terms identified within the data, highlight relationships among those terms, and draw connections between symbols that allow researchers to work toward their single purpose: "to uncover the system of cultural meanings that people use" (Spradley, 1979, p. 94). They assist ethnographers in attempting to understand the relationships that exist within a culture. Leech and Onwuegbuzie (2007) explained,

the beneficial aspect of domain analysis is that it gives an alternative lens with which to understand data, and it helps in creating future questions for participants. Domain analysis should be used when researchers are interested in understanding relationships among concepts. (p. 571)

Establishing semantic relationships is an important part of domain analysis. Spradley (1979) stated, "semantic relationships provide the ethnographer with one of the best clues to the structure of meaning in another culture" (p. 112). Major contributors to the use of semantic relationships are Casagrande and Hale with their original definition. Through their study on Papago culture, Casagrande and Hale (1967) defined thirteen semantic relationships, creating an exhaustive, mutually exclusive list that described all collected data. Spradley (1979) employed Casagrande and Hale's list, but emphasized, "depending on the analysis, one can enlarge or reduce the number of proposed semantic relationships" (p. 109). Spradley further made a distinction between two types of relationships: universal and informant expressed. I depict Spradley's universal relationships in Table 1.

Table 1
Spradley's Universal Semantic Relationships
(Spradley, 1979, p. 111)

1. Strict inclusion	X is a kind of Y
2. Spatial	X is a place in Y, Y is a part of X
3. Cause-effect	X is a result of Y, X is a cause of Y
4. Rationale	X is a reason for doing Y
5. Location for action	X is a place for doing Y
6. Function	X is used for Y
7. Means-end	X is a way to do Y
8. Sequences	X is a step (stage) in Y
9. Attribution	X is an attribute (characteristic) of Y

Furthermore, Spradley (1979) stated that sometimes "it is not so easy to identify one or another universal semantic relationship in what an informant says," thus emphasizing the importance of potentially creating a relationship based on the informant's own words (p. 111).

I used domain analysis with my interview data, using the informants' own words, when possible, to establish codes and domains within my data. I first took my interview transcripts and read through them multiple times to begin establishing codes and identifying applicable domains. After multiple read-throughs, I drafted codes for my data, which Saldaña (2016) defined as "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (p. 3). This process entailed me highlighting different words or phrases that contributed to my established research questions. Esterberg (2002) described this first stage of the process as "open coding," making note of important themes or trends that are found in the data. This style of coding does not depend on established theory, but instead uses the data itself in the creation of the codes (Esterberg). Throughout this process, I used in vivo coding, pulling directly from the words of the speakers.

Once I finished a few transcripts, I began organizing the codes into different domains, so that applying codes to my remaining transcripts would be more organized. I then applied these codes to each interview transcript, adding codes as needed for each data transcript to be entirely represented in my codes. Through this initial process, I also identified stories, anecdotes, and specific quotes that I wanted to use in my data summary that emphasized various aspects within the school. Saldaña (2016) reminded researchers that coding is a cyclical act and will likely not be complete through one round of coding. Thus, I repeated this process with each interview at least two times. Saldaña asserted, "qualitative inquiry demands meticulous attention to language and images, and deep reflection on the emergent patterns and meanings of human experience" (p. 11). After coding my data, I continued the process of synthesizing the codes into categories (Saldaña, 2016). When necessary, I re-arranged codes into more fitting categories or collapsed categories together to firmly establish my domains. Once my domains were established, I

selected the most appropriate semantic relationship for my domain and the included terms within that domain. This process took multiple drafts, sometimes having to choose the best option between two semantic relationships. Once these were selected, some codes were again shifted into different domains, or new domains were created to meet the needs of the data. I then created structural questions for each relationship, which are "the kinds of questions that elicit taxonomic categories" (McCurdy et al., 2005, p. 50). Lastly, I applied these structural questions to each set of data to create domain analysis tables and identified which semantic relationships were better represented by taxonomic structures. From there, I created the appropriate domain and taxonomic tables for representing my data.

It was important to me to incorporate taxonomic analysis, which "helps the researcher to understand how participants are using specific words" (Leech & Onwuegbuzie, 2007, p. 572). McCurdy and colleagues (2005) also emphasized that "taxonomic lists are essential to the discovery of detailed cultural meaning" and that taxonomies "yield an added sense of how members of a group order or structure their cultural knowledge. This structure is as much a part of culture as are cultural categories themselves" (p. 54). Using taxonomic analysis allowed me to expand on the semantic relationships created in my cultural domains and emphasize the relationships among more terms that fit into sub-categories. This expansion helped me with domains that had a larger subset and required additional organization to notice trends or common themes; it also enabled me to see how subsets are situated in reference to the whole.

After analyzing my data and drawing conclusions, I presented my findings in two ways. First, I discussed what the data showed about the different structural questions established during the data analysis procedure, using the domain and taxonomic analysis tables as reference. Then, I provided a narrative section for each structural question. The narrative section includes stories

from my past experiences, anecdotes provided by a participant, or data from participant observations, including faculty meetings and professional development meetings. By using these methods of data presentation, I strived to present adequate stories and discussions to provide the thick descriptions needed to capture the culture of Johnson High School.

Ethical Concerns

While conducting my study, I worked to remain cognizant of the ethical concerns regarding research with human subjects. Spradley (1980) reminded researchers that—

> in a field of such complex involvements, misunderstandings, conflicts, and the necessity to make choices among conflicting values are bound to arise and to generate ethical dilemmas. It is a prime responsibility of anthropologists to anticipate these and to plan to resolve them in such a way as to do damage neither to those whom they study nor, in so far as possible, to their scholarly community. (p. 20)

Some guidelines Spradley provided for navigating this area include considering informants first; safeguarding informants' rights, interests, and sensitivities; communicating research objectives; protecting privacy of informants; and making reports available to informants. I included all these strategies in my study at Johnson High School. After obtaining permission from the school and receiving an IRB approval for research, I ensured that all participants were aware of the research procedures and objectives, were aware of any risks associated with my research, and were aware that their participation in research is entirely voluntary. I established trust with participants by taking measures to protect them as individuals and as members of the school community. While I did not use pseudonyms for my participants, I provided each participant with an opportunity to decline participation because of this intent. This was incorporated into the participant informed consent form. Additionally, I provided the informants an opportunity to act as member checkers

and read the written results of their interviews, the data analysis section, and the rest of the written study and offer feedback, to ensure that I captured their perspectives. I did not use a pseudonym for the school, as I intend to only report positive findings about Johnson High School. While this does bias the data collected and reported in my study, this study is investigating what is working well at Johnson.

<div align="center">**Qualitative "Reliability"**</div>

As a qualitative researcher, it is important that I considered how the reliability of qualitative research is evaluated. First, continually grounding my research in theory strengthens the integrity of my study. Thus, I continually tied my methods and procedures back to the theories and methodologies that inform them. Next, LeCompte and Preissle (1993) said to consider the following questions: "Did I get it right? and Did I get it all?" (p. 316). To help address these questions, I used the four criteria of judging the reliability of qualitative research established by Lincoln and Guba (1985): credibility, dependability, confirmability, and transferability.

To establish credibility, a researcher must establish that the interpretations are "credible to the constructors of the original multiple realities" (Lincoln & Guba, 1985, p. 296). Lincoln and Guba (1985) recommended specific techniques to address this criterion, including prolonged engagement, persistent observation, and member checking. The nature of my research requires a prolonged engagement within the field, and thus was incorporated. Additionally, as previously stated, I provided a copy of my research findings to the participants of the study to further establish the credibility of my research.

Dependability refers to the "constancy of the data over similar conditions" (Cope, 2014, p. 89). This criterion is also compared to the concept of "reliability" (Lincoln & Guba, 1985).

LeCompte and Preissle (1993) discussed that there are certain limits on the reliability of qualitative work. For instance, they claimed that "most qualitative designs baffle attempts at replication" (p. 332). As my study is a specific case, the idea that the results would be replicated is not guaranteed nor desired. LeCompte and Preissle stated "qualitative research occurs in natural settings and often is undertaken to record processes of change, so replication is only approximated, never achieved" (p. 332). By incorporating member checking into my data collection and data analysis procedures, as well as strategies such as including a variety in my selection of informants, clearly detailing my research methods, and remaining transparent that my study's results are unique to Johnson High School, I addressed the dependability of my study to the degree possible (LeCompte & Preissle).

The confirmability of a study is similar to the objectivity of the research study. To establish the confirmability of my study, I detailed every step of my research process, including the collection of raw data, the data analysis products, the data synthesis products, my process notes, and any instruments used in my interviews or observations (Lincoln & Guba, 1985). Particularly, my reflexivity demonstrated through my personal narrative selections placed my own subjectivity in the forefront, assisting with the confirmability of my study.

Lastly, transferability refers to the ability of my research results to be somewhat generalized to other settings. Lincoln and Guba (1985) recommended providing adequate thick descriptions to enable researchers to make their own judgements of transferability. As stated earlier, my findings may not be generalizable to other settings. Nonetheless, by providing thick descriptions, I provided the opportunity for researchers to "make the needed comparison of similarity" (Lincoln & Guba, 1985, p. 360).

Possible Limitations and Delimitations

The limitations of a study describe the potential weaknesses that are outside of the researcher's control, while the delimitations are characteristics selected by the researcher that limit the scope of the study, (Theofanidis & Fountouki, 2018). The limitations of my study, as discussed earlier, include the idea that my study is of a unique case and may not be applicable to other cases. If I extended the study to include multiple schools, I might gain a different insight into school culture. Another limitation is that as both the researcher and a teacher at Johnson, my level of familiarity with the participants potentially affected their responses in interview settings.

One delimitation to my study includes my choice to interview mathematics teachers exclusively. By doing so, I limited the scope of my study. I might receive alternate views if I were to collect a sample of educators from different departments. Another delimitation in my study is time. In an ethnographic study, I could spend a considerable amount of time conducting fieldwork and completing the research cycle. However, in placing a constraint on my time in the field due to the goals of my program, I might have imposed a delimitation. This subject could be further explored later, potentially within other schools in the county or with a larger research team. Another delimitation to my study was not getting every perspective within the building. While to some degree, this delimitation was out of my control as no counselors were willing to participate, I chose not to include some groups, such as lunchroom staff, janitors, and parents. While I do think that these aspects would have added to the study overall, I chose different subsets to focus on in this study. Another delimitation to my study was the lack of classroom observations. I had originally planned to observe the mathematics teacher participants in the study but decided against it in the field. While collecting data via interviews and throughout my observations in large group settings, I felt that the data I collected was substantial and spoke to

the participants' perspectives on the scene. My emphasis in this study was participant perspectives, and I did not feel it was necessary to observe their classrooms. While this decision brings in the question about what people say versus what people do, it was more important to me to focus on my participant's own interpretations rather than impose my own interpretations via observations.

Summative and Closing Thoughts on Methodology

Meticulous thought and planning go into the successful design of a research study. In my research design, I employed strategies from a variety of renowned researchers in qualitative research, specifically within the fields of ethnographic research, autoethnographic research, and case study research. I have detailed the processes used in my study, demonstrating a variety of techniques and procedures grounded in theory and practice. From the onset of my research process, it was important for me to remember that even with the most detailed and outlined plan, research in the field requires adaptability and the ability to adjust as situations arise and edits are required. Many adjustments were employed throughout the process of my study, creating the end product that I hereby present.

This study has value in its contribution to the discussions on school culture, school reform, and investigating what makes a school "successful." Through my investigation of key elements of Johnson's school culture and how it influences teacher experiences, I highlighted numerous successes of Johnson and what is working well within the building. This investigation enabled me to look beyond the scope of academics to other elements within a school that contribute to what it means to be successful. Conducting an ethnographic study at home came with both benefits and challenges but provided me the opportunity to tell a valuable story. A story that, from my time at Johnson High School, is important to tell.

CHAPTER 5

DATA REPORTING AND ANALYSIS

The Knights Creed: Be Honest. Be Respectful. Be Personally Responsible. You are blessed with Talent, use it to make a Positive Difference.

I begin this chapter by briefly describing each of the participants who took part in the study, presenting their important places within the structure of the school as a whole. I then present my analysis of the research data, which is depicted in domain analysis tables and taxonomic structures (Spradley 1979) and organized in subsections to target each of the finalized research questions that inform the study:

1. What is the school culture of Johnson High School?

    a. How do members of the school community describe its culture?

    b. What, according to their perspectives, are integral pieces of the culture?

    c. From their perspective, what contributes to the creation and sustaining of the culture?

2. What are the experiences of mathematics teachers within the context of school culture?

With each subsection, I incorporate numerous elements that speak to my analysis of the data. First, the domain analysis tables and taxonomic structures summarize the findings, presenting structural questions, cover terms, and included terms. I also include narratives from my personal journey that elaborate on elements in these structures, as well as narratives from my participants who help create a holistic view of the data. From there, I provide a summary of the data analysis section, tying my conclusions back to the research questions.

As Geertz (1973) reminds us of interpretive anthropology, there is a large amount of interpretation placed between the data collected and the researcher's perspective. The amount of information, summary, and narrative provided is intended to empower the reader to form their

own interpretations of the data collected. Additionally, the participants were asked to review the data presented to ensure that their perspective was preserved to the best degree possible.

It is important to mention that the participants involved in the study are a small sample of the amazing educators and staff who work within the walls of Johnson High School. It would have been wonderful to have been able to include all administrators, teachers, and staff who continually serve the school and the community for the betterment of the students of Johnson, had time allowed. Each administrator, teacher, and staff member play a pivotal role in the story of Johnson, its success, and its culture.

Participant Descriptions

The participant descriptions consist of data collected and details provided by each informant, as well as my personal reflections and interactions that I have had with these individuals over the years. For many of these participants, I have worked alongside them for numerous years and have developed close professional friendships and working relationships. As building relationships has always been a strong emphasis at Johnson, it is no surprise that I have developed these collegiate bonds and consider many of these participants friends. Likewise, they often discussed their friendships with one another, further emphasizing the friendships and bonds created within the building.

But before I present descriptions of the participants of the study, I provide a description of Johnson High School and the community that it serves. This description is based not only on the state reported data but also physical descriptions of the campus, a typical daily schedule, the make-up of departments in the school, and technological resources available to teachers in the building.

As mentioned earlier, according to the public Governor's Office of Student Achievement, Johnson's student population demographics are as follows: 76% Hispanic, 17% White, 4% Black, 2% Asian/Pacific Islander, and 1% Multiracial. As of 2019, approximately 76% of students qualified for free and reduced lunch; 25% of students are enrolled in the ELL (English Language Learners) program. Johnson's campus has three main areas: the main building, the modular, and the annex. The main building is composed of different wings, grouped by content and department, with a few exceptions. In this building are hallways that house the ELA department, the science department, the mathematics department, the CTAE department, the fine arts department, and self-contained special education classrooms. The main building is in the process of being connected to the Performing Arts Center (PAC) and the main gym. Behind the main building is the little gym and the modular building, composed of social studies classrooms. Going up a sidewalk, there is another building called the annex, which primarily houses the modern language department. In addition to the two gyms, sports complexes include two practice fields (one of which has a surrounding track), a football/soccer stadium, a baseball field, a softball field, and two sets of tennis courts. The typical schedule consists of 7 class periods of 52 minutes each, with 5-minute class changes in between (extended class change periods for when students travel to/from the annex), with an extended 4th period to accommodate three lunch periods. Each day has 12 minutes built in for a silent sustained reading time, except for Tuesdays. Tuesdays operate on an advisement schedule, with an advisement period dedicated to either advisement lessons or time for clubs to meet.

Johnson is a one-to-one school, with chromebooks being available to check out for any student that does not own their own device. When the decision was made to put chromebooks in the hands of every student, the computer labs in the building were converted into additional

classrooms and a learning lab. The learning lab is a space available for teacher sign-up and is composed of a large smart TV and multiple interchangeable tables that allow different class configurations. Most classrooms in the main building are triangular shaped and composed of typical student desks, which sometimes creates challenges for creative classroom activities. The learning lab helps provide a space for teachers' different classroom needs. Other spaces on campus available for teacher sign-up include the media center and the team room, located in the field house. All classrooms on campus have projectors and white boards. Some classes have additional technology, including Apple TVs and iPads. Other resources available for check out include a set of breakout boxes (an interactive escape game activity set) and hovercams. Additionally, ELA teachers that have EL courses are provided with classroom sets of headsets for practice with speaking and listening, and for read-to accommodations on tests.

With Johnson having a large population of multicultural students, it is worth noting that the faculty and staff is majority White. This difference in racial and ethnic backgrounds is an important topic in the make-up of Johnson's culture, however, it is not particularly discussed in my data representation. The school culture described is that of Johnson Knights, where different backgrounds and cultural traditions are celebrated, but the greater emphasis is on beliefs and values that unite us as a whole school, what it means to be a Johnson Knight. Remaining cognizant of students' cultural backgrounds and working toward culturally inclusive education is an area of continual reflection and growth for Johnson's faculty. But findings from this study emphasize that the faculty and staff work toward reaching students' needs in the school and in their classrooms by creating significant relationships with students and striving to meet the needs of each student as an individual, which is further elaborated on in this chapter.

It is also important to note that as I collected participants from different groups who influence a school's culture, I intentionally did not include participants from two groups who have a tangential effect on a school's culture: parents (guardians) and community members. Though these members of Johnson's community contribute to the collective whole and are important to the makeup of the school, this project was focusing more on the day-to-day operations and interactions that happen within the school building. Often, parents/guardians and community members do interact with teachers and staff on a regular basis, as they are not in the building daily, I chose not to include them in my data collection process. By choosing subsets of individuals within the building who interact with different groups on a daily basis, I limited the scope of my data collection.

Table 2
Table of Participants

Participant Name	Role	Gender[2]	Race/Ethnicity	Years of Experience in Education	Number of Schools
Shannon	Mathematics Teacher	Female	White	11	3
John	Mathematics Teacher	Male	White	10	2
Rene	Mathematics Teacher	Male	Hispanic	9	2
Scott	Mathematics Teacher	Male	White	8	1
Tina	Mathematics Teacher	Female	White	10	3
Katie	Mathematics Teacher	Female	White	4	1
Jonathan	Principal	Male	White	18	4

[2] Table data represents participants' self-identification

Amy	Curriculum Assistant Principal	Female	White	16	5
Stan	Former Principal	Male	White	30	5
Cathryn	Former Curriculum Assistant Principal	Female	White	30	6
Bryan	Administrative Assistant	Male	White	13	3
Tana	Instructional Coach	Female	White	15	1
Julie	Media Specialist	Female	White	27	2
Bethanie	Attendance Secretary	Female	White	18	2
Faith	Former Student	Female	White	N/A	1
Gaby	Former Student	Female	Hispanic	N/A	1

Mathematics Teachers

Description of Shannon. Shannon is a bright ray of positive energy in the math hallway at Johnson. She is the mother of three children, ages 20, 18, and 14, and enjoys running as her form of mental health. After her first 6 years of teaching, Shannon took a "15-year maternity leave" before returning to education 5 years ago. After teaching at another high school for 2 years, she came to Johnson and has been here for 3 years. Shannon has taught multiple subjects within mathematics, but currently teaches Algebra I and Algebra II, serving as content lead for Johnson's Algebra I Team.

Shannon's positive energy is infectious to the people around her. During class change, she can always be found joking and laughing with her teacher neighbors, and she places "having fun" as an emphasis in her classroom, stating "the day they tell me I can't have fun with these kids is the day I'm going to hang it up and find something else to do" (Interview 1). She creates engaging activities for her classes, builds personal relationships, and advocates for her students. She commented on how quiet and peaceful she feels like the halls of Johnson are, in comparison to other schools she's been a part of. She stated,

> maybe I just spend all of my time right here in this little corner of the world at Johnson and don't see the rest of it. If that's the case, I like it that way. I don't want to see the rest of it if it's different. (Interview 1)

When Shannon was hired 3 years ago, I recall Cathryn, the curriculum assistant principal at the time, bringing me into her office and sharing her excitement for the new addition to the staff. She had previously known Shannon and was supremely confident that not only would she be a huge asset to the math department but also she would be an amazing advocate for Johnson's kids and would do whatever was needed for them to be successful. Her strength was teaching algebra, so we quickly filled her schedule with Algebra I classes, the freshmen level course that is evaluated with an End of Course (EOC) state exam. Not only did this strategy allow a strong teacher to provide a strong instructional foundation for the students' future math courses but also it would help them be successful on the state test.

During her short time at Johnson, Shannon has become an extremely valued member of the mathematics team. She leads the Algebra I Team with integrity and decisiveness, encouraging a feeling of collaboration for teachers to "divide and conquer." She feels that if teachers can consistently share the workload, they can better maintain a work/life balance, and

she facilitates this mentality in her Professional Learning Community (PLC) meetings and with her work colleagues. She has also taken on mentoring opportunities at Johnson, sharing her teaching strategies and positive mindset with new teachers.

Shannon's participation in this study presented a perspective of a mathematics teacher who teaches various levels of students across multiple grades. She also has experience teaching at three previous schools, adding a voice of comparison to the study.

Description of John. Six years ago, Johnson High School gained an incredibly strong mathematician and resident jokester on the math hall, John. In that time, John has taught a large range of subject areas, from freshmen courses all the way to senior courses. This year, he teaches Algebra II, Honors Calculus, and the junior level of the International Baccalaureate (IB) Mathematics Analysis and Approaches course. John and his wife are foster parents, enriching the lives of the numerous foster children that have come under their care, with three of their own children. John has been involved at Johnson in various ways outside of the mathematics department as well, coaching women's golf, helping with the drama department, and coaching Esports, which provides him an opportunity to share his enjoyment of video games with students. John's classroom includes movie posters and UGA memorabilia, presenting his fun and easygoing personality to students upon first arrival in his room.

John and I first met while we were both earning undergraduate degrees at the University of Georgia. Upon graduation, John moved to South Carolina and taught at a middle school for 4 years. After moving back to Georgia, he began teaching at Johnson, where I had coincidentally been teaching since graduation. While incredibly strong in any subject he teaches, John quickly became passionate about teaching higher level mathematics courses, finding his stride in teaching calculus and even teaching adjunct college courses for a year. For many years, most of

his schedule consisted of courses that were PreCalculus or higher, and he thrived on developing higher level engagement opportunities, such as math problems of the week that challenged students to increase their mathematical aptitude.

John connects with students by using humor as an entry point. He said that he knows a lot of the time it's "lame…mostly to get the kids to like, roll their eyes at me. But at least they're engaged and, you know, I can bring them in that way" (Interview 1). John noted that he can often be seen in the hallway making "dad jokes" with his friend and classroom neighbor, Scott, continually forming connections with students even outside of class. John's laid back and funny personality makes him approachable for his students, even while maintaining high expectations within his rigorous courses. John also makes a point to stay up to date with current pop culture in hopes of being able to have a view into the lives of students and what they are interested in.

In his first interview, John commented on how an enjoyable work environment is essential in motivating teachers:

> a work environment that is enjoyable really helps me be motivated to come into school, come into my classroom, and be engaging and be energetic, and you know, be silly for my kids to get them going too. (Interview 1)

His positive outlook on work, life, and his excellent range of movie and tv show recommendations has served fellow teachers in his department well. Over the years that I have worked with John, lunches often consist of his interesting stories and anecdotes, and when fellow teachers are stressed or needing assistance, John is regularly someone who offers to assist where possible, helping perpetuate the positive work environment that he cited as a source of his own motivation. John's participation in this study adds some comparison between the middle school

and high school levels, as well as a familiarity with both the previous administration team and the current one at Johnson.

Description of Rene. Rene has been teaching at Johnson for 4 years. Rene is a part of the Algebra I team, teaching a couple of English Learner (EL) sections, as well as teaching PreCalculus to Johnson's seniors. He is the father of three girls, with two who are under the age of four. Rene drives almost an hour to work every day to be a part of the Johnson community: "I tell my wife, I'm happy here at Johnson. Because of the people. Because of the positive interactions" and that he has no desire to search elsewhere for another job" (Interview 1).

Rene's entry into the Johnson mathematics department was a little unusual, as he began teaching after the school year had already started. My first year serving as department chair, a teacher quit the first day of school due to family reasons. The position was immediately posted, and the mathematics department responded as they always did, in a collaborative team effort. Teachers pulled multiple classes together into the media center to team teach, as well as teaching during their planning periods and during lunches to ensure students were receiving the material they needed to be successful. The mathematics faculty were so grateful when Rene joined the department: not only did we have a certified, bilingual math teacher, but we gained an incredible educator who has become an integral member of the math team. Soft spoken in nature, Rene has an incredible kindness that he shares with everyone around him, students and staff alike. He also has a calming nature that creates an atmosphere of trust in his classroom. As one of few Hispanic teachers on Johnson's faculty, Rene can connect with students in a way that many teachers are unable to. His ability to meet Spanish speaking students where they are and work with them in both Spanish and English to create mathematical successes is an amazing asset within the department and within the school.

Although Rene has a quiet nature, the department faculty, full of personalities and energy, quickly went to work with breaking Rene out of his shell:

> Thinking back to when I was hired and came to meet my classes for the very first few days, maybe every one of my new colleagues kept checking on me, how everything was going, how I was doing, if I needed anything to just let them know. It just felt right, they were welcoming me to the team, and that was awesome. (Interview 1)

The comradery and teamwork within the department was an idea that Rene referenced multiple times during his interview and is something that he regularly contributes to. Rene can often be found in the math hallways during class change, sharing stories and laughter with other team members in the department, spreading positive energy around the hall. He talked about the guys in the department joking around with him and how he valued the bonds that had been formed with his fellow teammates. Rene also mentioned that he likes being part of a collaborative team, and that he could "ask anybody for anything and they're going to help me out" (Interview 1). These experiences were a big distinction that he made between working at Johnson and working at his previous schools. He commented that even when he feels like teaching is an uphill battle, within the department, "we're there together" (Interview 1).

Rene brings the perspective of a former middle school teacher, an EL teacher, and a teacher who works with students of all grade levels within the department. His perspective in this study in an important one, providing a significant contribution to the holistic perspective.

Description of Scott. Scott began teaching at Johnson 8 years ago. Like me, Johnson is the only school that Scott has ever taught at, being raised as a teacher under the same leadership as I was. Growing in his formative years as an educator within the walls of Johnson has affected his view of the education system: "I believe that teachers should be able to build very strong

relationships with their students professionally and that that will ultimately lead to success in the classroom" (Interview 2). He emphasized that this point of view stemmed from what he's observed of administrators in the building: "I've seen a lot of our administrators pour into their faculty, creating a lot of personal growth just based on building relationships" (Interview 2). Scott brings this relationship emphasis into all areas that he's involved in at Johnson, making intentional efforts to form bonds with his students and personal connections with his colleagues. He leads the PreCalculus PLC, while also teaching Algebra I and the senior level of the IB Mathematics Analysis and Approaches course. Scott regularly works at developing strong lessons that are approachable for his Honors level students, while pushing them to a level of excellence. He can also regularly be seen in the math hallway, workroom, or fellow teachers' classrooms, providing support or spreading laughter, both integral pieces of the department's atmosphere. Scott is also involved in many other ways at Johnson, including membership on the School Improvement Team (SIT), coordinating the PSAT, co-sponsoring Mu Alpha Theta (the honor mathematics society), and co-sponsoring Fellowship of Christian Athletes (FCA). Through all these areas, Scott consistently seeks out opportunities to build positive relationships with his peers, his students, and his leadership team.

Scott and his wife, also a teacher, are the parents of a two-year old little girl. Throughout his time at Johnson, Scott has emphasized what it means to be family-centered, and he mentioned that this was something that always spoke to him about the atmosphere and leadership of Johnson. He shared that when his wife was pregnant with their daughter, there came a time where he made the hard decision to step down from coaching:

I was met in my classroom by the principal, the interim principal, and the athletic

director. All of which sat down with me and told me how proud of me they were…they

brought up the whole "you've got to take care of the home team." And while you hear

that a lot in your career…you hear it a lot here at Johnson, it was the first time I actually

really needed to hear it for a personal level. (Interview 1)

Scott consistently mirrors this sentiment with those that he interacts with, continually

emphasizing the importance of the "home team."

In addition to his other roles within the school, Scott serves as an incredible leader within

the math department. He often assists with department level responsibilities and is someone I

collaborate with regularly on making decisions on how to best serve the mathematics faculty. His

leadership skills, passion for helping students, and drive for personal growth will one day take

him out of the classroom into an administrative position, a professional goal of his. But, in the

meantime, the department is fortunate to have a strong teacher, leader, and mentor serving

Johnson's students and his fellow teachers.

Description of Tina. Tina has been at Johnson for 8 years and has been teaching for a

total of 10. After her first couple of years at Johnson, she moved to Savannah when her husband

was relocated for work. She taught there for a year before her family had the opportunity to

move back to the area. At that time, she reached out to Cathryn to see if Johnson had any

openings. Cathryn's eager reply was, "not yet, but I will." Tina had been an outstanding asset to

the mathematics team, and the opportunity to have her return was a big win for the department.

Tina is currently the content lead for the Geometry PLC, she is a member of the Blended

Learning Support Team (BLaST) and is one of the school's assistant softball coaches. She is

currently working on her Specialist Degree, earning it in instructional technology, media, and

design, further growing in her craft. She teaches all levels of geometry, including honors and EL

courses. Because of this range of students that come through her classroom, Tina has made

intentional efforts to develop strong skills in the area of differentiation and accommodating student needs at all levels and has been successful in that endeavor.

Tina is known in the mathematics department for her meticulous planning and organization, as well as for her generous and helpful demeanor. Not only is she an extremely strong content developer, creating engaging lessons for her students and sharing them with her team but also, she regularly offers assistance and guidance to anyone on the hallway who is seeking extra support. She facilities a PLC Team that emphasizes collaboration and cohesiveness, working to create an atmosphere in which the teachers feel comfortable pushing each other to be better and helping one another grow. Furthermore, Tina adopts a growth mindset within her classroom and in her role as a leader, demonstrating she is always open to new ideas, regularly finding research and articles that spark intellectual discussions.

Tina believes in the importance of caring about the whole child. She mentioned that in addition to teaching her students math, she emphasizes teaching them how to overcome struggles, ask for help, and self-advocate (Interview 2). Tina also believes in the value of relationships, stating that while this mindset was once a push from administration, it is now an internal motivation for her. From a collegial perspective, Tina emphasized that the culture creates an atmosphere that she feels like relationships grow within. She said, "my best friend, I made here…the teacher next to me on the other side was the DJ at my wedding. The positive culture makes a whole lot of difference" (Interview 1). She also makes intentional efforts when building relationships within her classroom:

> I make sure to talk to every single child at least one time while they're doing their work. I make an intentional effort to make a loop around my room and specifically ask every single child, is there anything I can help you with? And the more that I get to do the loop,

the more comfortable as the year goes, that they are with actually asking for help.

(Interview 1)

The effort put into creating these bonds helps set the foundation for the success of her students. Tina brings an element of comparison to this study, having taught at another school. She also contributes to the perspective of teaching multiple different levels within the department and has a familiarity with both former and present administrative teams.

Description of Katie. Katie began teaching at Johnson 4 years ago when she graduated college from the University of North Georgia. Katie is the only teacher of the Accelerated Geometry/Algebra II course in the school and has been teaching that since her first year at Johnson. In addition, she teaches Geometry (on level, and honors level), as well as Honors Calculus. Early on in her time at Johnson, she communicated a love for higher level mathematics, and has demonstrated an outstanding ability to make rigorous content approachable for high school students. Many of Katie's students are members of the Johnson International Scholars Academy (JISA), the freshmen and sophomore honors program at Johnson. Thus, Katie is an integral part of the vertical alignment team, preparing students for IB courses their junior and senior years. Like most other teachers in the building, Katie finds many ways to stay busy outside of the classroom. Katie co-sponsors Mu Alpha Theta at Johnson and is an assistant basketball coach for the girls' basketball team. She is also currently enrolled at Georgia State University pursuing her Master of Education degree in mathematics education. Additionally, Katie was named Star Teacher this year, further emphasizing the impact she makes on the students in her classroom.

Much of Katie's success of connecting with students stems from her kind and compassionate nature. She balances the nuances of having high standards in her classroom with

facilitating a safe and comfortable learning environment. When visiting her classroom, students are always engaged and asking questions, demonstrating a high level of trust in the room. Additionally, you can often find students in her classroom before or after school, further showing her commitment to their success. Her willingness to help others also benefits her colleagues. Shannon mentioned that when she first started at Johnson, Katie (her teacher neighbor) was incredibly helpful in teaching her how to use the different technology elements in her classroom. Though much of Katie's curriculum is unique to her classroom, she works together with teachers to make student transitions easier from year to year. She commented that the comradery in the mathematics department is an asset, that working well together "helps the students' education flow a little bit better because we are all kind of communicating and we know each other's style a little bit…we all have our strengths" (Interview 1). Katie regularly contributes to the collaborative feel in the department, being a steady source of positivity for those around her.

In Katie's interviews, she discussed the positivity and support that she has felt throughout her time at Johnson. She mentioned that when she first started,

> anything I needed, anyone was willing to help me with and I think that really helped us to kind of get to know each other better and feel really supported at Johnson. And then as new people come in, I'll help them. (Interview 1)

Katie mentioned that though still early in her career, she does not see herself making any moves anytime soon, explaining, "I don't want to risk going to a school that isn't as awesome as Johnson" (Interview 1). She emphasized that Johnson's administration, leadership team, and general supportive atmosphere provides an environment where she has "freedom to try new things and experiment with teaching and improving. But I also have people that will help me if I need it" (Interview 1). As one of the newer members of the mathematics team, Katie provides a

perspective of consistency, as the majority of her career has taken place under the current

principal and her entire career has been at Johnson.

Administrators

    Description of Jonathan. Jonathan has been the principal at Johnson for the past 2 years,

starting his initial year as principal in a difficult time for education, during the COVID-19

pandemic of 2020. Nevertheless, Jonathan has rose to the challenge and has focused on

facilitating a culture of respect, growth, and trust, even when challenges present themselves. As

principal, Jonathan views his number one goal as "to be able to monitor and maintain the culture

every day" (Interview 1). Before stepping into this role, he served as assistant principal and

athletic director at Johnson for 5 years. Thus, he has spent 7 years at Johnson working toward

building relationships with faculty and staff, which is demonstrated by the leadership style he

employs every day. Before coming to Johnson, Jonathan worked at 3 different schools, one for 5

years, one for 4 years, and one for 2 years. Jonathan and his wife are the parents of an eight-year-

old boy.

    One of the first things that a person notices when interacting with Jonathan is his

kindness. Jonathan treats everyone he comes across with respect, he approaches all situations

from a place of positivity, and he puts people at ease with his approachable nature. Bethanie, a

fellow participant and front office worker, commented, "we don't walk on eggshells…he's just

always approachable and he's always positive. He's a wonderful person" (Interview 1). She

mentioned that even when Jonathan is having a bad day, you would never know it. This attribute

of consistency, when coupled with his open-door leadership policy, creates an atmosphere

conducive for discussion with fellow administrators, teachers, staff, and students. He also

regularly leads meetings through the model of having a growth mindset, one of the words that

Jonathan chose to describe the culture of Johnson. Additionally, Jonathan has an introspective way about him, reflecting on a situation from all perspectives before making any rash decisions. These leadership qualities are important in continuing a community of trust and respect within the building.

Though administrative tasks often keep Jonathan's plate full, he does not allow his responsibilities as principal to prevent him from being a visible presence in the building. Jonathan is one of the faces that greets students and staff as they walk into the building in the mornings, starting the day with a smile, an essence of positive energy, and a welcomed presence of leadership. He regularly walks throughout the hallways, finding pockets of opportunities for building relationships with the faculty and staff. Rene reflected on an interaction when he shared the news of his wife's third pregnancy with Jonathan. He mentioned that Jonathan stopped in his path to engage and celebrate the excitement with him. Rene noted that Johnathan is "interested in what's going on with you…that makes a difference to me" (Interview 1). The intentional way that Jonathan interacts with everyone on campus reiterates his belief in creating a culture of community and family, celebrating the successes of the faculty and staff, or coming to the aid of others when the need arises.

Jonathan believes that those who work in education should strive to meet the needs of the whole child:

> Teachers and adults in the building are here to empower students with the necessary skills, attitudes, behaviors, and character traits to ultimately allow them to be successful members of society. And empowering them with the desire to achieve more and to want to go out and make a positive impact in the world around them. (Interview 2)

Jonathan demonstrates this belief by continuously modeling the Knights Creed, holding himself and teachers to a standard worthy of excellence.

Jonathan's participation in this study was important in capturing all perspectives within the building. As the principal, Jonathan has a unique point of view and contributes to much of the discussion around how Johnson's culture is created and sustained.

Description of Amy. This is Amy's first year at Johnson. She serves as the curriculum assistant principal, working with curriculum and instruction, specialty programs, testing, scheduling, and other student services related items. Her office is located within student services, and in addition to the administrative team, she works closely with the school's counselors and graduation coach, discussing how to meet the needs of students in the building. Before coming to Johnson, Amy spent 6 years in an administrator position, split between 2 different schools, working as a curriculum assistant principal for 4 years at a middle school before transitioning into an assistant principal over Special Education, 504 plans, Response to Intervention, and attendance. She taught for 9 years prior to that, 7 of which were at the same school. Amy and her husband, recently retired from education, have 4 children, ages 27, 25, 22, and 20, and one grandchild.

When Amy was approached about taking the curriculum assistant principal position, she commented that the Creed was important in her learning about the focus and character of the school. The Creed—

> that was one of the things that impacted my decision to come here…I didn't really
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> know much about Johnson…and so, I looked it up and I thought that Creed, that's
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> something I could definitely stand behind. A lot of schools have a vision or mission or

whatever that's posted on the website…but when I came here, it was evident. It's

everywhere. The students know that Creed. (Interview 1)

Since coming to Johnson, Amy has prioritized working toward making relationships with the

students and staff. She encourages teachers and acts as a sounding board to those who are

struggling, while also fulfilling the many responsibilities that her job entails on a daily basis.

In the short time that I have known her, it is obvious that Amy's leadership style is open-

door and collaborative in nature. She works closely with other administrators to try to ensure all

are on the same page with decisions that affect the whole school. She also collaborates with

teachers in making sure that students are receiving the resources and attention they need to be

successful. Amy reiterated that she has noticed that at Johnson, students, as people, are the focus

for all decisions: "we're looking at serving students and helping the students reach their

potential, whether they're aware of their potential or not. To help them see it and to help them

get there" (Interview 1). This emphasis speaks to who Amy is as a person and as an educator,

demonstrating a passion for helping students. She consistently directs conversations and

discussions to focus on what is best for the students and how faculty and staff can best meet

students' needs and encourage their growth. Amy's drive to better those around her not only

affects the student body, but also affects the teachers and staff as well. Bryan, a fellow

participant and administrative assistant, commented that Amy "genuinely wants to do whatever

she can to help people strive to be better, whoever they may be, or whatever their role is, in the

building" (Interview 1). This attitude provides support to staff who are in the process of

recovering from a difficult time in education, the COVID-19 pandemic. While teachers and staff

in the building are working toward a "new normal," Amy acts as a support structure,

encouraging teachers in their growth and as they implement curriculum to meet the expected standard at Johnson.

Amy adds an important perspective to the study with her fresh ideas and ability to compare the culture at Johnson to what she's experienced at other schools. She also interacts with others on a whole school scale, providing insight into the culture at a big picture perspective.

Description of Stan. Stan has been in education for almost 30 years. Before working at Johnson, he was an assistant principal and athletic director for 5 years and served as principal at a school outside of Hall County for 4 years. He was the principal at Johnson for 10 years, stating that it was "the best 10 years of my career, without question" (Interview 1). Stan now works at the district office in Hall County as the director of communications and athletics. He and his wife are the parents of twin girls who are graduating from high school in the 2022-23 school year.

While at Johnson, Stan enriched the lives of teachers, students, and staff. His leadership style and emphasis on building positive relationships was pivotal in shaping the educational beliefs of many teachers, myself included. When discussing his time at Johnson, Stan commented:

> I came into it not really knowing how the people and the kids were going to impact and transform me. Did not realize the amount of growth that would take place. It was just…it was an amazing experience for me. I grew a lot, and I learned a lot. I got to work around some fantastic leaders, some incredible teachers, and I got to watch students and staff transcend and step up. Improve and develop a culture where students could be successful, students could be engaged. Students could enjoy coming to school, feeling like they're a

part of something…it was a cultural transformation, and it was just amazing to watch and be a part of. (Interview 1)

Other team members also shared their joy in being a part of the school's development during this time and were plentiful in their comments and anecdotes about Stan's influence in their teaching careers, some of which are included in the sections about the role of leadership in culture creation. Stan is known for his approachable nature, his encouragement of teachers to pursue opportunities for growth and development, and his continuous source of support in teacher lives, whether it be inside the classroom or at home. During his time at Johnson, Stan was a constant and visible presence in the building, a positive leadership quality discussed in many of the participants' interviews. He was consistently seen in the hallways, in classrooms, and at the center of each and every pep rally. Tana (a staff member, subsequently described) shared a memory:

There was one pep rally in particular, when we initiated a spirit sword during this time…the kids really actually, like rallied behind it, and really liked it. We had just had a class competition and I think the seniors won it, or the juniors, I can't remember, but they grabbed the sword and they all rushed towards this principal that had started this tradition, and they were chanting his name. And I don't know. To me, it just made a big difference, because the kids, they all look different, you know. They're a very diverse group. But that didn't matter to them. (Interview 1)

These were also fond memories for Stan. As one of the many ways that Stan connected and interacted with students, he reflected, "I've always been proud of our pep rallies" (Interview 1). Though sometimes recruiting the football coach to help, just in case the students would get too energetic, the spirit and excitement in the gym on those days was something to be remembered.

Stan noted, "we could be 0 and 9 and still have an amazing pep rally. And I think it was because we were all together. We were all unified. We loved each other" (Interview 1). That unity was, in part, orchestrated by Stan. His implementation of the Knights Creed provided a set of beliefs for the school to be united behind. But more than that, his personality and leadership was the embodiment of the Creed, encouraging everyone around him to truly "use their talents to make a positive difference."

Stan's story and perspective were pivotal in capturing Johnson's holistic picture. By sharing his point of view and motivations behind different decisions made during his tenure as principal, his story contributes to the discussion behind how to create a positive culture.

Description of Cathryn. Cathryn retired at the end of the 2020-21 school year after 30 years in education. She began her career in Houston, Texas as a teacher for 7 years and an administrator for 1 year at a middle school. When she moved to Georgia, she taught for 2 years at a high school and then became an assistant principal at a private military academy. After 2 years, she became the principal at the academy for 5 years before coming to Johnson, where she worked as the curriculum assistant principal for 13 years. In her time since retirement, she has enjoyed frequent opportunities to travel and visit her children and grandchildren, as well as spending time on the lake and at the tennis courts.

The first time I met Cathryn was my first interview at Johnson. I learned a valuable lesson about Cathryn that day: she does not waste time. In the time that I have known her, she has proven to operate with a vision of efficiency, and when certain pieces fall into place that work with her vision, she quickly makes decisions and moves forward for the sake of progress. This skill has been instrumental in creating opportunities for growth and development at Johnson. Coupled with her ability to assess, implement, and examine effectiveness of different

initiatives, she continually pours into those around her, providing an endless source of support for teachers, staff, and students. In my 10 years working with Cathryn, she has passed me countless tissues during difficult times, has written me notes of encouragement (that still go on my wall every year), has celebrated my successes as a teacher and as a person, and has given me the critical feedback necessary to help develop my craft as an educator. From my experience at Johnson and from comments made in interviews during this study, she has played a similar role in many other educators' lives. Cathryn remembers small, important details, and shows love for people in large ways, perpetuating a culture of care at Johnson.

One memory I have of Cathryn is when a fellow teacher and friend of mine had come to my classroom about a difficult situation she was facing. I stepped out of my room to comfort her and to try to provide some advice, which ultimately ended in suggesting "you should go to Cathryn." About that time, Cathryn had rounded the corner of our hall, immediately asked if everything was ok, and collected my colleague into her office to listen, advise, and support. As curriculum assistant principal, the job comes with countless tasks, responsibilities, meetings, and "to-dos." Cathryn however made time for any situation that came across her desk (or passed by her in the hallway). And she approached those situations not only with patience and compassion but also as a problem solver, where all parties walked away with action steps and resolution.

In addition to the emotional and mental support she showed teachers on a regular basis, Cathryn supported teachers in their instructional practices. She set the bar high for teacher expectations, basing her policies and initiatives on research, data, and performance. She viewed her most important job as making sure that "everyone would be in the right place with the right population of kids" so that teachers and students could succeed (Interview 1). She expected excellence and provided the strategies for teachers to reach it. Whether that involved assigning

mentors, providing PL, coordinating observations of fellow teachers, providing teachers with time (an important commodity in the education world), or giving teachers specific instructional strategies to use in their classrooms, she was hands on and actively engaged with increasing teachers' abilities and aptitude. Because this support was so apparent, teachers often rose to the challenge she would set before them, and would reiterate this standard amongst each other, perpetuating a culture of excellence.

Cathryn's perspective was important in this study, adding to the conversation about how the culture was created at Johnson. Her influence and leadership among the staff were evident throughout participant interviews, and her story helped add to the narrative of how Johnson's culture has become the unique entity that it is today.

Staff

Description of Bryan. Bryan has worked at Johnson for 7 years, teaching social studies and coaching football for the first 4. In his fifth year, Bryan stepped into a split role between administrative assistant and instructional coach for 1 year before transitioning fully into the administrative assistant role for the past 2 years. He and his wife are the parents of a boy and a girl, ages 9 and 7, respectively.

In his current position, Bryan serves as the Advanced Placement (AP) coordinator, the Response to Intervention (RTI) coordinator, assists with attendance related discipline issues, and helps with several things in between. Oftentimes, Bryan acts as a support and sounding board for teachers in the building: "I enjoy that people are comfortable enough with me to come and talk to me and really, it's me listening and encouraging" (Interview 1). Being an approachable and family-oriented person, Bryan regularly contributes to facilitating comradery within the school,

and he mentioned how throughout his time at Johnson, it has felt like a home, "a home with high standards" (Interview 1).

Bryan believes that the number one goal in education is the success and growth of children, stating

> the more you can focus on helping your teachers get what they need, feel supported, feel like they have a comfort level in asking for help or a comfort level in feeling like they can take chances, doing something that may be a little outside the box…and not feeling like there's an immense amount of pressure on them to take those leaps…you'll see more successes. (Interview 2)

Helping teachers has been Bryan's focus for the entire time that I have had the honor of working with him. He consistently and regularly checks in with teachers, offering solutions and working behind the scenes if needed, or offering comfort and guidance. His easy-going nature and kind soul enable him to build relationships with teachers that are based on trust and respect, often leading to opportunities for him to take on the role of mentoring others, a role that he executes with specific intention and care.

Bryan attributes a lot of his growth in his career to the leadership team that helped motivate him to pursue administration. He recalled that Stan once left a note in his box thanking him for all that he does, telling him that he was doing a great job, and stating, "if you ever have a desire to go into administration, I think you'd be great. Let's have a talk" (Interview 1). Bryan stated that the note "meant a lot and it actually pushed me. It was that push I needed to say, ok, this is what I want to do" (Interview 1). Since then, Stan has worked with all the administrator participants, both past and present, and has grown in various areas of administration, including curriculum, athletics, and handing discipline. New horizons are in view for Bryan, as he will be

transitioning into an assistant principal role at another school next year. As much as his positive, calming, and comforting presence will be missed at Johnson, his growth as an educator is celebrated within the building.

Bryan adds a unique perspective in this study as he has a whole school vantage point, being involved in a variety of areas and disciplines. He also has a perspective of comparison, having taught at 2 other schools in his career.

Description of Tana. Tana began her career at Johnson in 2006, the same year that I graduated from high school and was coincidentally my assigned advisement teacher for the last semester of my senior year. Probably only meeting once or twice that year, I was excited to get to know her better once I came back as faculty. At that time, Tana was a social studies teacher, a role she served in at Johnson for 10 years, including serving as department chair for 4. She took 2 years off after having her second son to spend more time at home with her children. When Johnson became a Title I school in 2018, the opportunity arose to hire an instructional coach, and Cathryn reached out to Tana to consider filling the position. Tana accepted, and she has been serving in that role for 4 years. For the last 2 years, I have had the opportunity to learn from her as we have collaborated in this role together. During this time, I have learned so much from Tana about being a teacher and an instructional coach. She has consistently demonstrated the level of thought and care that should go into each aspect of the job, and that above all else, we should strive to help develop and share effective strategies that are centered around student needs.

Tana's fantastic ability to lead teachers in the school stems from her exemplar skills as a teacher in the classroom. While teaching at Johnson, Tana's teaching style emphasized maximizing student engagement, where she would create lessons and content that is well organized and exciting for students. In her time as instructional coach, these strengths have been

channeled to reach a greater number of students in the building by working with teachers of all content areas. Tana develops professional learning for the school, works with new teachers in their growth as educators, and works within PLCs to increase student growth. Tana thinks that education should "prepare students to be productive members of society. That means teaching them the knowledge and critical thinking skills that they need to adapt to be functioning adults where they contribute their talents through whatever career path they choose" (Interview 2). She views the classroom as a training ground for students to practice how to process and communicate their skills and works with teachers to effectively manage classrooms in which students can prosper and grow. Additionally, Tana serves on the SIT and on the Wellness Committee, two entities that emphasize whole school initiatives.

In describing what working at Johnson is like, Tana emphasized the phrase, "once a Knight, always a Knight" (Interview 1). She said that even when a student graduates, "when they're in need of something, or they're going through a personal trauma, the community still steps up" (Interview 1). It is fitting that this example comes to Tana's mind, as it describes her own reaction when others are in need. Tana is a servant leader, thinking of herself as part of a whole and putting others' needs at the forefront. She has a patient, kind, and selfless demeanor, making her approachable for young or struggling teachers, and her methodical practice and attention to detail enables her to effectively model strategies that help teachers of all levels.

Tana adds to this study by providing a leadership perspective, but also a point of view that interacts with many different people throughout the building on a regular basis. She also provides discussion about the history of Johnson, having been a member of its community for more than fourteen years.

Description of Julie. I first met Julie my freshman year of high school when I was a student in her World History class during her time teaching in the Johnson social studies department, which spanned 6 years. My junior year, I was fortunate enough to have her again as a teacher, for AP Government. After her sixth year of teaching, Julie became the media specialist at Johnson and has worked in this role for the last 15 years, earning both a specialist degree and a certification in leadership. Outside of Johnson, Julie has experience teaching at one other high school for 6 years. Julie and her husband, also in the education field, are the parents of two girls, ages 18 and 16. Julie chooses to work outside of her home district, as her experience working there was not an enjoyable one. She commented, "it is worth me driving over the bridge every day for a little less pay and a lot more love" (Interview 1).

Julie's personality shines through her role as media specialist in the school. She thrives on helping students, teachers, and staff find the resources they need, whether that includes books, technology materials, or often, a piece of chocolate. Her kindness is evident in how she interacts with anyone in the building, and she contributes whole heartedly to the positive energy within the school. Often providing the comic relief at faculty meetings, Julie is never without a smile, and spreads laughter and joy to those around her. She further supports teachers through her involvement on the mentor/mentee committee and through her role as co-lead of the BLaST team.

Julie said that her interactions with all members of staff and students within the school elicit positive feelings, "and it's not just because I wear rose colored glasses" (Interview 1). She commented that rarely does she interact with a student or teacher in which the feeling is negative. Julie shared her bulletin board of notes and letters as an example of how she feels supported in the building (see Figure 2).

Figure 2. Julie's Wall of Encouragement.

Some of these may have come from administration, and others from students, all with the intent of brightening a person's day. Julie described the culture of Johnson as a family working together to meet the needs of "the whole child," which is the focus of Julie's view of the education system. She noted that that phrase, the whole child, "has stuck with me throughout my educational career. Of course, we need to teach kids academics…we also have some non-tangibles to teach such as critical thinking skills, life skills…there should be a practical end to education" (Interview 2).

From a personal perspective, Julie has been a mentor and large supporter of mine since I began my career at Johnson. I vividly remember walking out of my first Johnson interview and having her arms wrapped around me, welcoming me back to the JHS family. She provides a bright ray of sunshine on the rare grey days, and truly has a love for helping others. She also regularly looks for opportunities to tell my students what I was like as a high schooler, and that I should have gone into social studies education.

Julie provides a point of view from someone in a support role within the building. She also presents data from a long career at Johnson, spanning the range of 4 different principals. Her perspective is important in considering the holistic view at Johnson.

Description of Bethanie. Bethanie has been the attendance secretary at Johnson for 8 years. But that just scratches the surface, so to speak, of the responsibilities that Bethanie fulfills in the building. In addition to overseeing student check-ins and attendance issues, she helps the principal with administrative tasks, such as printing and typing, and helps with organizing school events and staff get togethers. Before working at Johnson, Bethanie was at an elementary school for 10 years. Bethanie and her husband, who is retiring from education this year, have two daughters, 28 and 26 years old.

Bethanie has a caring nature, and shares that with students when they come through her office, whether for an attendance related matter or when waiting to see an assistant principal. She noted that most of her interactions with students are when they are checking in late, but one of her main goals is to find out *why* they are late. As there are certainly students who slept in too late and still stopped on the way to school for drive through or a coffee, at times Bethanie practices a little tough love. But she also shared that sometimes students are late because they are dropping their siblings off at their own schools in the morning or were up late working to help their parents and their families. Bethanie commented that in those cases, "you're just happy they made it here by 3rd period…so I'll be like, did you eat breakfast? Do you need a snack?" (Interview 1). Bethanie discussed that it is difficult to see students who are stepping into those adult roles and that she tries to support them in the ways she is able. This approach to her job emphasizes Bethanie's model of caring for the whole child, and that she goes above and beyond in her role.

Bethanie's compassionate nature is not only shared with students, but with the faculty and staff as well. In helping with many of the staff appreciation lunches and events, her kindness helps with establishing a community feel and family atmosphere in the school. These events are hosted with meticulous and careful planning, and they are always enjoyable times for staff to gather and celebrate each other's company. Additionally, Bethanie takes time to consider what individuals might need to spread joy into their day. When we had a new nurse hired part of the way into the school year, Bethanie thought, "I think I should probably go get flowers to, you know, welcome her" (Interview 1). Bethanie's extra care and attention that goes into spreading joy throughout the school makes a positive difference for everyone in the building.

Bethanie discussed multiple times in her interview that the culture at Johnson feels like a family: "we gather around our people," but at the same time "we have high expectations of our kids" (Interview 1). She said that she feels like everyone in the building is held to high expectations, which is what enables our students to be successful.

Bethanie contributes to this study by providing a perspective from the front office staff, as well as having different forms of interactions with students and administrators on a daily basis. She also works with faculty and staff in whole building initiatives, contributing to the holistic perspective.

Former Students

Description of Faith. Faith graduated from Johnson in 2021. During her time at Johnson, Faith was a student in the JISA program as well as the Full Diploma IB program, the most rigorous program offered at the school, taking all her junior- and senior-level courses at the IB level. Additionally, Faith was extremely involved throughout her entire high school career. She was in theater for most of high school, holding officer ranks for 3 of those years and she

participated in competition cheer for 2 years, football cheer for 1 year, and color guard for 2 years. Faith held offices in every club that she was a part of at Johnson: she was a member of Beta club for 3 years (holding an office for 1), was a member of National Honor Society for 2 years, serving on the tutoring committee her junior year and president her senior year, and was in the Future Business Leaders of America for 2 years, serving as the Business Administration Board chairman her senior year. Faith's level of involvement at school speaks to her character as a person. First and foremost, she is driven and is committed to bettering herself and the lives of those around her. Additionally, in her time at Johnson, Faith has demonstrated that she enjoys working as part of a team to make a difference in the world around her. Faith is currently a student at Georgia Tech, majoring in computer engineering.

Although Faith said most of her peer relationships were of the academic nature, she felt like as a whole, they were a united student body:

I feel like there was a lot of diversity, but I always felt united with the school as a whole. I feel like administration had a lot to do with that. And I feel like a lot of the instructors had a lot to do with that. (Interview 1)

Faith mentioned multiple times throughout her interview that she created a strong bond with many teachers in the building. She said that she felt like the culture at Johnson was "really like the butterfly effect" where one person's actions would affect many people's days in the building (Interview 1). She discussed how she felt like her teachers had a much do with instilling the Knights Creed within her, and that they affected her life after high school by motivating her to make a positive difference in the culture that she is within now. She said that she consistently looks for examples of the positivity of her teachers within her current experiences and strives to "contribute only good to my current college's culture" (Interview 1).

My personal interactions with Faith stem from when she was a competition cheerleader during my time coaching at Johnson. Faith's work ethic and drive were evident in how she approached challenging situations, both inside and outside the gym. She approached situations with a team mentality and encouraged her fellow cheerleaders to persevere through challenges and always look for opportunities to increase their knowledge, skills, or effort.

Faith adds an important point of view to this study, discussing her experiences as a student within Johnson's school culture.

Description of Gaby. Gaby graduated from Johnson in 2021. During her time at Johnson, Gaby was involved in competition cheerleading for 3 years, track and field for 2 years, and soccer for 2 years. Additionally, Gaby helped with the yearbook by taking pictures at numerous Johnson events. Gaby was an active member in the student section at football games, emphasizing how these moments formed some of her favorite memories from high school. Gaby commented, "it was always high spirited. … I believe that came from just all of the students coming together" (Interview 1).

My personal experiences with Gaby came from when she was a member of the competition cheerleading squad. During that time, Gaby stepped into a role of leadership on the team. While we did not have captains, Gaby was often an example on her squad of the work ethic and effort it took to be a successful member of the team and to continually push herself for personal growth. Her senior year, Gaby approached me about switching spots with a teammate to better the whole performance of her squad. This one act in and of itself demonstrated Gaby's team mentality, and her priority of putting the team before herself as an individual. Gaby continually demonstrated this personality trait, providing encouraging words and support for her teammates throughout her time at Johnson, on any sport that she was part of.

Gaby commented that during her time at Johnson, she noticed that "we all wanted each other to succeed" (Interview 1). This attitude was apparent to her in the relationships she built with her peers, as well as the ways that she interacted with administrators and teachers. She felt like people poured into her and demonstrated that they were invested in her future. Gaby reflected on the positive mindset at Johnson, "even if we were losing at the football games," this positive mindset was a constant influence on how I felt safe (Interview 1). She was happy to be a part of it. Gaby is currently a student at Lanier Tech, pursuing a career in the medical field, and works for a dental office, using the lessons she learned at Johnson to be successful in these areas. She discussed that her time growing in the culture of the Knights Creed influenced her to consistently be more respectful and more responsible in her life now.

Gaby adds an important point of view to this study, discussing her experiences as a student within Johnson's school culture.

Data Presentation

In this section, I present the summary of my data findings, using domain and taxonomic structures. I first discuss the descriptions of school culture, both generally and specifically at Johnson. I then examine cultural emphases of Johnson, transitioning into discussion about the strategies and contributing factors in the creation and sustainment of culture. I specifically look at the role of administration and the Knights Creed in the development of Johnson's culture. I then conclude with discussing the mathematics department and their responsibilities, goals, relationships, and experiences within the context of school culture. Table 3 presents a summary of the domains used throughout my data analysis process.

Table 3
Domain Analysis

Domains	Semantic Relationship	Structural Question
Descriptions of school culture (Strict Inclusion)	X is a kind of Y	How do participants describe the general idea of school culture?
Attributes of Johnson's Culture (Attribution)	X is an attribute of Y	What qualities do participants attribute to Johnson's culture?
Cultural Emphases (Strict Inclusion)	X is a kind of Y	What types of mindsets, activities, or ideologies are emphasized at Johnson?
Building relationships with students (Means-End)	X is a way to Y	According to participants, what are strategies for building relationships with students?
Building relationships with teachers (Means-End)	X is a way to Y	How does administration build relationships with teachers?
Attributes of Administration (Attribute)	X is an attribute of Y	What attributes do participants assign to administration?
School Events for Establishing Culture (Strict Inclusion)	X is a kind of Y	What school events and activities are used for cultivating school culture within the building?
Community Events for Establishing Engagement (Strict Inclusion)	X is a kind of Y	What school activities are used for cultivating community engagement?
Factors Contributing to School Culture (Cause-Effect)	X is a cause of Y	What factors contribute to creating school culture?
Sustaining Johnson's Culture (Means-End)	X is a way to Y	What actions and policies help sustain Johnson's culture?
Math Teacher Responsibilities	X is a kind of Y	What responsibilities do math teachers have?

(Strict Inclusion)

Math Teacher Goals (Strict Inclusion)	X is a kind of Y	What goals do math teachers have?
Building relationships with colleagues (Means-End)	X is a way to Y	According to participants, what are strategies for building relationships with colleagues?
Impact on Teachers (Cause-Effect	X is a cause of Y	What impact does positive school culture have on teachers?
Comparisons to Other Schools (Strict Inclusion)	X is a kind of Y	How did participants describe other schools they had been a part of?

Describing School Culture

> I like to think that there's two components in that we have culture and climate. Climate's changing like the weather. Some days, the climate is good, some days, the climate's bad. But over a long period of time that climate creates the culture. And the culture here at Johnson has always been of a family.
>
> – Scott, Interview 1

At the onset of my data collection process, I was cognizant of how difficult it is to define school culture, as demonstrated in the literature. Thus, it was important that I incorporate various points of view from each of my participants. In investigating "how do participants describe Johnson's school culture," it is important to start with the participants' general descriptions of school culture. Table 4 presents the different descriptions of culture provided by my participants.

Table 4
Descriptions of School Culture

1. Semantic Relationship: Strict Inclusion
2. Form: X is a kind of Y
3. Example: The school's identity is a kind of description of school culture.

Included Terms		Semantic Relationship	Cover Term
The values we hold together as a group	What is important to the people		
The school's identity	The branding of the school		
Who your people are…where they're from, what their language is, food, clothes	The feeling students and teachers have when they're in the building		
What is important, what brings us together, united in one mission, one goal	How everyone relates to each other	Is a kind of	Description of school culture
The heartbeat of the school	The general mood of teachers		
The glue that makes use come together and be a school	How we work together toward common goals		
Over a long period of time, the climate creates the culture			

Structural Question: How do participants describe the general idea of school culture?

Numerous participants described school culture by discussing the feelings they have by being a part of it, or the appearances of what culture might look like from an outside perspective. John mentioned that while defining it might be challenging, "it should be something that is very easily observable to anybody who walks into your building" (Interview 1). Additionally, Tana emphasized that concept of personal identity wrapped up in school culture. She commented, "the

school you belong to is a part of who you are as a person. It becomes a part of you, and it influences how you act and how you perceive yourself as part of a whole" (Interview 1). Cathryn took a different approach in talking about school culture, viewing it from a point of what the kids feel about their ability to succeed within the school. She stated that she felt school culture was examining the question of, "do the kids that go there, and probably the staff, feel like there's a good probability that they can be successful and that somebody cares that they're successful" (Interview 1). While there is no right answer to the question, each unique perspective contributes collectively to the whole.

One commonality among many of the descriptions is the idea that the culture is composed of, and affects, everyone within the building. Participants mentioned fellow teachers, support staff, students, cafeteria workers, administrators, custodial staff, parents, paraprofessionals, and bus drivers. In response to asking who contributes to the school culture, John summarized, "the very low hanging fruit answer is everybody contributes to the culture, but I really do think that. The tone is set by our administration…and then it goes to teachers to set the tone for our students" (Interview 1). In addition to stating how it made them feel, some participants described ideas like shared beliefs and values, and others discussed the identity or purpose of the school. Synthesizing these various descriptions together and incorporating my own perspective, the definition of school culture that speaks to me is the common values and core beliefs that create a common understanding and purpose within a school building. Part of this description was influenced by my growth as a teacher under a leader who values culture above all else. When asked about his leadership style, Stan responded,

> first and foremost, I am a cultural leader before I am an instructional leader. Because I
>
> feel like if the proper culture is not in place, sound instruction is not going to be a

priority. And so, you've got to have the right culture in place for instruction to thrive.

(Interview 1)

Like me, many other participants' and teachers' journeys and perspectives were influenced by the beliefs and leadership style of our former principal. Many of us started our careers or had formative growing years under his leadership. Thus, it is important to share his story from the start of his career at Johnson to help demonstrate his own growth as a leader, and how that growth has trickled down into teachers' perspectives.

When Stan started at Johnson in 2011 (the same year that I began my career there), he noticed that people in the community had formed a misconception about Johnson High School. Being a school that had prominent issues with gang activity, those in the community had begun to believe that was what Johnson had to offer. Many participants who were part of the school prior to 12 years ago mentioned this reputation, and the policies that were in place to combat issues at school. Cathryn mentioned, "if two students were wearing the same color shirt, they couldn't walk next to each other" (Interview 1). Heartbroken by the community's misconception, and the perpetual cycle that students within the school were finding themselves a part of, Stan stated that

> one of the first things I set about doing as far as casting a vision was to create a place where kids felt valued. Kids knew that the adults in the building believed in them and in their potential. And a place…a work environment and a learning environment where there were high expectations. And everybody in the building believed that kids could meet those expectations. And so that's what we set about doing. And obviously, it wasn't anything that would happen overnight. I knew when I cast that vision that it would take time. (Interview 1)

Although the task ahead was steep, and it would certainly take time, Stan went to work in studying how to create a cultural change within a building and eliciting the support of administrators, teachers, and other leaders. In reflection of Stan's early decisions as principal and at the onset of the large cultural shift that was about to unfold, Cathryn commented, "this man…he was a force to be reckoned with, and he won the hearts of kids" (Interview 1). Julie commented that early on when Stan began his tenure as principal that she could tell his emphasis was on the students. She stated, "I could tell he was a family guy, and I could tell his relationships with our students were authentic" (Interview 1). According to participant descriptions, over time, the culture within the school became a positive, loving, welcoming place for students and staff to feel celebrated and supported. As Bethanie described in her interview, "it's a culture of kindness" (Interview 1). Additionally, Tana emphasized that

> when you have an environment where people feel constantly cared for and they feel safe, a lot of good learning can take place and people want to be there, because it's a place of safety and security, including for our kids. It became a safe place for them. (Interview 1)

Bethanie credited this feeling of safety and security to hearing from the principal every day that he loved us, and he believed in us, and that the kids heard it every day as well. Amy, finishing her first year at Johnson, commented, "the culture here is different than anything I've ever experienced. It's very student focused…everyone here is really looking out for meeting the needs of these students" (Interview 1). Table 5 depicts additional attributes that participants gave to Johnson's culture.

Table 5
Attributes of Johnson's Culture

1. Semantic Relationship: Attribution
2. Form: X is an attribute of Y
3. Example: Respectful is an attribute of Johnson's culture.

Included Terms		Semantic Relationship	Cover Term
Loving	Inclusive		
Accepting	Collaborative		
Rare	Invested		
Positive	Kind		
Responsible	Family-oriented		
Caring	Unique		
Supportive	Friendly		
Dedicated	Quiet	Is an attribute of	Johnson's culture
Infectious	"The Best"		
Rigorous	Trusting		
Diverse	Peaceful		
Respectful	Welcoming		
Hard Working	Safe		
A good chaos	Harmony		
Integrity	Sense of unity		
Pride			

Structural Question: What qualities do participants attribute to Johnson's culture?

Generally speaking, all participants had positive reactions when asked about Johnson's

culture and described that the overwhelming majority of interactions that they have on any given

day are positive. Jonathan commented, "even in negative, there's an opportunity for us to learn

and grow from it" (Interview 1). Tana mirrored this sentiment by describing a can-do attitude when challenges arise, adopting an outlook of "how can we fix this challenge" (Interview 1). Katie had a similar reaction when describing interactions with administration, emphasizing, "if an admin does have to talk to you, it's never negative, it's never this is what you're doing wrong. It's how can I help you with this" (Interview 1). These types of positive interactions help establish a setting where feelings of support, family, and collaboration can be celebrated.

Because such strong lines of communication and trust are emphasized, a continual growth mindset is present within the building. This growth mindset is apparent in collaborative meetings and school wide initiatives in the sense that the leaders and teachers within the building are continually seeking progress and reflecting upon areas for improvement. Though benchmarks and achievements are celebrated, it is evident that individuals in the building are looking for next steps and working with others to learn more and grow more. Julie mentioned easy communication that goes both ways when interacting with others in the building; and Tina specifically discussed processes for giving and receiving constructive criticism. She stated,

> we all just have a very family, loving relationship and everyone wants to help everyone.
>
> And so even if we approach someone about like, hey, maybe this should change, it comes
>
> from love, and they know that. And so, it's always well-received. (Interview 1)

Feelings of teamwork and comradery provide teachers with partners and friends to help counter the general feelings of stress and anxiety often found in the education profession. Some participants described friendships that had come out of working together, discussing how partnership in the building had eventually created bonds outside of the workplace.

The welcoming dynamic of Johnson's culture is initiated right at the onset of a new teacher entering the building. I reflect on my own initiation into the halls of Johnson. Apart from

two of my previous teachers waiting outside Cathryn's office during my first interview

(participant Julie being one of them), the math department itself flocked around me as a new

teacher and I instantly felt like I was part of a whole. Teachers shared materials with me, helped

me with my classroom, and probably most importantly, invited me to lunch. I recall telling my

fellow math teachers that as a first-year teacher, I just had too much work to cover and that the

20-minute lunch break was my chance to get through one more stack of quizzes while eating my

sandwich. Jeremy (pseudonym), another teacher there at the time, said to me something to the

effect of "I promise the quizzes will be ok until the end of the day, come take a brain break and

relax with us for a bit." I conceded, and that was where I ate lunch for the next 3 years. And that

was where I developed some of the best working friendships that I had in my formative years as

a teacher, who helped support me during what would come to be the hardest years of my life.

That was the welcoming, friendly, and loving side of Johnson that supported me as a new

teacher, providing me the opportunity to thrive.

This welcoming nature was also present in observations made during faculty meetings

and mentor/mentee meetings throughout my study. New teachers were never found sitting alone,

they were always surrounded by mentors or fellow teachers from their departments.

Additionally, stories arose out of my interviews with participants. Shannon reflected about when

she first started working at Johnson and had an administrator come visit her classroom within the

first month of school. Shannon received an email later that day with compliments and

encouragement,

> just a "I love how you did this" and "you're doing a great job at that" and "you're going
>
> to be great at this" and "we love having you here." And I never got that anywhere

else…but the fact that they took time out of their day, which was busier than mine, I'm

sure, to come and do that. It made me feel like this is where I want to be. (Interview 1)

This email stood out to Shannon as an example of the welcoming atmosphere in the school.

Additionally, Tina reflected on how in her first few years at Johnson, relationships were

emphasized so much that she just practiced it on the faith that it would work. She said that she

tried it "because they said it would make me a better teacher…but after a few weeks, you really

do care about the kids, I mean how could you not" (Interview 1). She went on to talk about how

this practice is instilled in each new teacher in the building, who come to realize the importance

of emphasizing relationships in their rooms, "and then you just end up with a whole building of

teachers who really do care about their kids" (Tina, Interview 1). Bryan discussed the differences

between previous schools, where there was a feeling that people in the building were just a

number, as opposed to Johnson where "this place has a family-oriented feel to it, that people

mattered" (Interview 1). Additionally, Bethanie shared a story about her first week at work:

> I started working here at a very traumatic time in my life…and I could remember open
>
> house, it was when I was going to count out all the stuff for each teacher and I was just in
>
> tears and they were like, you shouldn't even be here…I have just always felt supported
>
> and like even though I came in and didn't know anybody from Adam's housecat, it
>
> was…you know, like this is your new home…and it's just been wonderful. (Interview 1)

A common thread throughout out these anecdotes was constantly and consistently a feeling of

love and support for all those in the building.

The compassion of teachers, maintaining a growth mindset, and creating a family-like

atmosphere in the building were mentioned throughout much of the data. These ideas were some

of the ideologies presented by participants as a cultural emphasis that exist within the building

when examining the research question, "what, according to participants, are integral pieces of the culture?" Table 6 depicts these ideas, as well as other included terms provided by participants that demonstrate a kind of cultural emphasis present at Johnson.

Table 6
Cultural Emphases

1. Semantic Relationship: Strict Inclusion
2. Form: X is a kind of Y
3. Example: Relationships is a kind of cultural emphasis.

Included Terms		Semantic Relationship	Cover Term
Growth-mindset	Honesty		
Showing gratitude	Whole-child approach		
Literacy skills	Creating community		
Everyone wants to help everyone	Being respectful of others, in every way		
Creating a family	Resiliency	Is a kind of	Cultural Emphasis
High expectations	Compassion		
Relationships	Using talents to make a positive difference		
Developing common minded people	Focused on the big picture		
People matter			

Structural Question: What types of mindsets, activities, or ideologies are emphasized at Johnson?

One emphasis that came up in many interviews was that the focus of education should be centered around caring for the whole child. John said that his mindset was that "we teach everything to everybody so that somebody can use something in their life" (Interview 2). This something might come in the form of a student finding their passion through a subject area, or it might come from a student learning the problem-solving skills needed as they progress through life. Julie and Tina both mentioned the whole-child approach in their interviews, both

emphasizing that education is about so much more than academics. One unique tradition at

Johnson is a fundraising event called "Knights Gotta Eat." First established by an ELA teacher at

the school, these events consist of a lunch provided by faculty members (through a sign up).

Those that sign up donate a cooked dish, and faculty and staff pay $5 for their potluck lunch. All

money raised is donated to the Silent Knights fund, which helps provide for students in need. In

addition to the Silent Knights fund, Katie mentioned the backpack program. Both programs are

focused on helping students that are in need. Whether it amounts to sending food home on

weekends so that students are provided for at home, or helping provide school supplies, Johnson

has different programs in place to assist students outside the realm of academics. Additionally,

Amy mentioned that the emphasis at Johnson is not just trying to increase numbers or play the

data game, but that we're looking at serving students. From a student perspective, Faith

mentioned the various ways that she felt like her teachers, coaches, and counselor went beyond

the classroom in affecting her life:

> I feel like most of my personal connections I got out of Johnson were with instructors…I
>
> basically had…almost a military mentorship, unofficial, from my chemistry teacher
>
> junior and senior year…I had heavy help from him and my senior counselor in applying
>
> for a military academy I wanted to go to…one of my cheer coaches got involved in that
>
> and helped me…so a lot of my interactions went past what high school required.
>
> (Interview 1).

The connections made went beyond assisting with academics or even extra-curricular events.

Faith also mentioned a counseling group she formed with two of her teachers and her senior year

counselor. Individuals in the building were helping Faith outside of the set and standard

curriculum and were supporting Faith for what she would embark on outside of high school.

Another common theme throughout much of the data was the mentality that the school creates a cohesive community, and that we strive to help one another. Tana mentioned,

> my gut instinct reverts back to, well it's not necessarily what's good for me, is this what's best for the school? And I think that it's part of that culture, because I see myself not as an individual but as part of a greater being. We're part of a whole, we're part of a community. (Interview 1)

On a personal perspective, I recall the year that my mother passed away. I was with her in the hospital at the start of the Spring semester and took some time after she passed away before I returned to school. In that time, no part of me was able to process emotionally or mentally what was happening in my classroom or what the necessary steps were to make sure my students were successful. But the amazing part was, I did not need to. My fellow math teachers stepped up, they taught my students content, they supported my co-teacher as he became a math content teacher overnight, and they provided meals to feed me and my family. The support that poured into us, even outside the classroom, sustained me through a most difficult time.

The act of rallying around one another and providing comfort in times of need is a regular practice within the walls of Johnson. With over 100 faculty and staff, there are often times where a fellow Knight needs comfort and support, or when a person has a reason to celebrate. Both are ways that our teachers and staff consistently build a community. Rene mentioned,

> When my second daughter was born, I told my wife…they want to do a baby shower for Amelia, she was like "what?" I remember you guys got together and got presents and had a celebration for my new member of the family. So, that was amazing, it was very touching (Interview 1).

Across the board, the faculty and staff at Johnson regularly seeks out opportunities to celebrate each other's momentous occasions and rises to support those in need or in times of hardship.

The most common cultural emphasis discussed in the data was the importance and value of building relationships within the building. Many participants identified it as a critical element in the creation or sustainment of school culture. Thus, I discuss this element in more detail.

Building Relationships

> Building relationships is the basis for everything we do. We believe that building relationships is the key to learning. That once you have that relationship, kids are more likely to work…or with your boss, you're more likely to listen to what the person has to say, if there's a relationship first.

– Tina, Interview 1

From day one of becoming an employee at Johnson, the mantra of building relationships is discussed, modeled, and reiterated. Put more succinctly, Bryan commented, "we're in the relationship business" (Interview 2). Amy further emphasized this point when discussing graduation rate data. She mentioned that when talking about the goal to raise graduation rate among the leadership team, the discussion was not focused solely on how to increase the percentage. Instead, the team specifically talked about the students who had not graduated. This point of view was reiterated in observations made at school improvement team meetings, where breakout groups discussed what strategies the school could implement to build stronger relationships with struggling students, providing them with the encouragement they needed to finish high school. From there, the focus in this meeting turned to increasing student attendance, which prompted discussions about club participation and increasing classroom engagement to create buy in for all students. At each table, members of the school were discussing how to help the students and how to better reach them. In her interview, Tana emphasized, "if you have relationships with students, you'll ultimately be a better teacher for them" (Interview 1). Because

building relationships is a cultural emphasis at Johnson, many participants mentioned different

strategies for doing so in their interviews. Table 7 presents the domain of building relationships

with students, including strategies discussed throughout the interviews.

Table 7
Building Relationships with Students

1. Semantic Relationship: Means-End
2. Form: X is a way to Y
3. Example: Asking questions is a way to build relationships with students.

Included Terms		Semantic Relationship	Cover Term
Asking questions	Trust centered activities		
Hallway interactions	Welcoming the kids		
Setting high standards	Being approachable		
Relating to their lives	Eating lunch in classrooms		
Staying positive	Talking to each student		
Helping before school	Staying current in popular trends	Is a way to	Build relationships with students
Telling jokes	Establishing methods of communication		
Supporting each other	Creating personal interactions		
Checking in on their home lives	Being encouraging		
Coaching sports	Sponsoring clubs		
Engaging lessons	Intentional conversations		

Structural Question: According to participants, what are strategies for building relationships with students?

Many of these strategies including fostering positive and regular engagement with

students are often shared amongst teachers to help assist the collective whole. One strategy was

shared during an observation of a professional learning session when an ELA teacher described

an intentional conversation tracker she uses to ensure that all students are receiving

individualized attention at some point in the week. Another strategy shared at that PL included

sending positive "blue cards" home, emphasizing the importance of establishing positive communication with parents. Additionally, at a faculty meeting, Jonathan discussed the importance of teachers being at their doorways during class change to greet students as they entered the classroom. This small, intentional interaction enables students to walk into the room being greeted with a smile, setting the tone for a productive and positive classroom experience. Jonathan also mentioned that this could provide an opportunity for a teacher to notice if any of their students seem troubled or concerned about something, giving teachers a chance to offer additional support, help, or notify students services that a check-in could be beneficial for a student's mental health.

The discussion of building relationships went beyond strategies for implementation, and many participants discussed the *why*, the motivation behind these interactions, and why they felt like this relationship building was an important part of our school culture. Tina mentioned that at first, building relationships was this idea that was pushed on teachers from administration during the first yearly faculty meeting of pre-planning. But, after some time of the intentional practice of emphasizing relationships, she said, "with experience, I can see the difference that it makes" (Interview 1). As emphasized in the school improvement team meeting, students are more important than just numbers in a spreadsheet or data points for making goals and setting predictions. Facilitating opportunities for connections to be created within the classroom is something that Johnson teachers strive to accomplish.

Additionally, John mentioned the "trusted adult" initiative, which is the goal for every student in the building to have an adult who they feel comfortable turning to with school or personal matters. While part of this initiative involves brainstorming strategies (such as using advisement time to foster more individualized relationships, one idea presented in the school

improvement team meeting), the larger emphasis is the *why* behind it—so that an atmosphere is created in which all students are cared for. When talking about her goals of teaching, Katie mentioned,

> everyone's kind of working to bring them up to their best, so it's not just come to high school, get in, get out, and move on with your life. It's we want to support you and get you to the best you can be when you do get out of high school. (Interview 2)

Similarly, Rene discussed how from his perspective, the point of the education system is that it's a way to

> open kids' curiosities…I want them to be curious about their world. Curious about knowledge…just to be self-educated, we are just a little bit of the path that they should take throughout their life. I want to give them an example of just being curious about their world and for me, school, it opens some doors about that, you know. (Interview 2)

The teachers at Johnson pour care, hope, and love into their relationships with students in hopes that it extends beyond the walls of our building.

Relationships were also emphasized in interviews with former students. Faith commented, "the culture was literally just all my teachers just being good people…I never felt guilty for taking up space in their life" (Interview 1). In her interview, she discussed how the counseling group formed her senior year with her teachers and counselor was an extremely important part of her high school experience. She went on to say, "they had good hearts and souls, spoke with kindness, and I feel as if they truly cared about my wellbeing" (Interview 1). Similarly, in Gaby's interview, she talked about the relationships she formed with her teachers and her coaches, and how she felt like her teachers gave her endless support and attention, making her feel valued as a person. Gaby emphasized that when interacting with teachers, "they

would always great you with a smile. They would always make sure they were present in the conversation" (Interview 1). Both Faith and Gaby discussed ways that they received help from teachers both inside and outside the classroom, specifically talking about the intentional efforts made by their teachers to be supportive of them in their life.

In addition to student relationships, colleague relationships are also extremely important to the culture at Johnson. Teachers form friendships and lean on each other to be successful in the classroom, and to survive the demands of teaching. Since the teachers in this study were solely within the mathematics department, I discuss the process of forming colleague relationships in a later section, emphasizing the experiences of the mathematics teachers. Additionally, throughout the data, many discussions around the forming of relationships mentioned that at the end of the day, the example and emphasis all begin with the administrative team.

Leading Through Example

> As a leader, as the principal of the building, one of the most important things that you do is you communicate the vision. And you do it every day. Through words and through your behaviors. The other piece is empowering folks to make decisions on their own, to make sure that vision takes place and becomes a reality.

> – Stan, Interview 1

A comment made by most staff throughout their interviews is that the creation of culture at Johnson stems from the actions of the leadership team. The administration sets the tone and models the examples of what is expected within the building. Some of the particular behaviors emulated by administration include modeling how to handle discipline in respectful ways, approaching situations with strategies for growth, facilitating a supportive environment, and of course, an emphasis on the importance of relationships. Relationships are cultivated between administrators and teachers through intentional actions on the administrators' part, allowing

teachers and staff to feel appreciated and trusted to do their jobs. Table 8 presents the domain of

strategies that were shared for how administrators build relationships with staff members.

Table 8
Building Relationships with Faculty and Staff

1. Semantic Relationship: Means-end
2. Form: X is a way to achieve Y
3. Example: Being visible is a way to build relationships with faculty and staff.

Included Terms		Semantic Relationship	Cover Term
"I don't feel broken down by what they're saying"	"They have my back, so I can take chances"		
Being great at communication	Making time for teachers		
Trusting teachers to do their jobs	Asking "hey, how are you today"	is a way to	build relationships with faculty and staff
Putting letters in boxes	Checking in on teachers' families		
Showing appreciation	Asking "is there anything I can do for you?"		
Admin striving to make a place desirable to work	Hallway interactions		
Informal conversations	Being visible		
Open-Door policies			

Structural Question: According to participants, how does administration build relationships with teachers?

Many participants mentioned the importance of informal communications with the

principal and assistant principals as a pivotal way that relationships were formed in the building.

Scott mentioned that he's commonly asked "how's the home team," emphasizing that the leaders

in the building encourage us to value our family and personal time. Jonathan stated these types of

interactions as a particular goal of his:

I try to make it a goal to speak to each person almost every day. With over 100 staff, that

can be quite the tall task. And given the nature of what happens throughout the course of

the day, that can be challenging. But through walking throughout the halls, stepping into

people's rooms, I try to speak with each one of our faculty members and staff members

as much as possible. That helps to continue to build our culture. It also allows for two-

way communication between myself and if our teachers have some feedback for me or

something that they may be dealing with either professionally or personally. (Interview 1)

Jonathan also mentioned that Stan had said to him when he took over as principal, "it's kind of

like you're the mayor of a small town" (Interview 1). Many teachers talked about the principals

walking through the halls, creating opportunities for informal interactions and relationship

building. Scott's comment about administration: "every one of them has an open-door policy, but

what's even better, is they get out of the door" (Interview 1). The consistent presence of

leadership in the building and in the hallways has a large effect on the atmosphere of the school.

From my own narrative, I recall a time during my first year of teaching when the walks of

the principal affected my day. I had challenges that year (as most first year teachers do) and had

come to my former ELA teacher for some classroom management guidance. In addition to the

overwhelming feelings of being a first-year teacher, a student had really upset me that day. So, as

I stood in her room seeking guidance, I was emotional and quite literally crying on her shoulder

when Stan walked by the room while making one of his afternoon hallway principal walks. He

paused, turned around, and entered the room. I was mortified. Crying in front of my principal

within the first couple months of school was not something that I was striving for. But, before I

could even say anything, he said something like,

you don't need to tell me what's going on if you don't want to. You have an extreme

wealth of knowledge standing in front of you, as I'm sure you know. I just wanted to tell

you that we love you, we appreciate all that you're doing, and you're doing a really great

job.

He gave me a side hug, and he walked out of the room. "We love you, we appreciate all that

you're doing, and you're doing a really great job." In my 11 years at Johnson, I could not attempt

to tell you how many times I have heard those words, spoken those words, or seen those words in

an email or staff room sign. With those words that day, I felt weight alleviated from my

shoulders. Because I was doing a great job. I was trying my hardest. And I was seen for what I

was accomplishing, even if a freshman boy had me crying in my mentor's classroom that

particular day. I mentioned this interaction to Stan at the end of our interview for this study. He

said he honestly did not recall that specific interaction, but made the comment, "that interaction

probably took 30 seconds. But think of what it paid out in dividends. It's so important that your

teachers feel supported."

Walking the hallway also provides an opportunity for administration to form

relationships with students. Faith said that she felt like the principal "always made himself part

of the school" during her time there (Interview 1). By walking the hallways and interacting with

students, calling them by name, students get a better feel for who their leaders are. Gaby

mentioned that she always felt like there was someone in the hallway, and it somehow made the

halls of Johnson feel less lonely (compared to another school she had attended). Administrators'

presence in the hallways provides consistency and safety for everyone in the building.

Additionally, the administration's open-door policy creates a much more approachable

feeling for teachers. Tina commented that in talking with teachers at other schools, she's often

asked "oh, you would go to your administrator for that?" to which she replies, "yeah, my

administrator is awesome." She elaborated by stating, "I can be blunt with her, as long as I'm

respectful. And she doesn't ever hold it against us. So, I definitely think at Johnson, there's all kinds of outlets" (Interview 2). I recall during our last county evaluation, there was an opportunity when we had district-level administrators interviewing our leadership team. The administration was asked to leave the room, so that we could have an opportunity to share our feelings. A question along the lines of "is there something you need?" was asked to the group. Confused, we looked around at one another until one of our leaders finally said, "if there's something we need, we just ask our administrators." Many teachers commented that the administration had their backs, were on their side, and were their greatest advocates. Shannon emphasized this idea by discussing how administration protects their time as much as possible, "standing at a wall" for their teachers, so to speak. Katie mentioned that when pursuing collective goals, "it trickles down from the admins…they support the teachers, and the teachers support the students, and the support staff supports the teachers and the students…we're all working toward the same goal" (Interview 1). This collective power and unity ultimately make the school more successful in pursuit of its goals.

From a different perspective, Cathryn discussed an accountability strategy that she and Stan used to build stronger relationships with teachers. She mentioned that every Monday, she and Stan would meet before school and discuss the needs for the week. This discussion could envelop all the items on a principal's and an assistant principal's to do list, but oftentimes, Cathryn would have identified a couple of teachers who needed extra support, guidance, or encouragement. While keeping some of the teachers on her own list, she would also ask Stan to check in on specific teachers, making sure their cup was being filled, so to speak, by multiple leaders in the building. She said that she never had to follow up or circle back or double check that those conversations had happened, that they always did. So, not only is it important that

strong relationships are built between administration and teachers, but that the team of administrators develop a system of trust, support, and collaboration so that everyone in the building is meeting the needs of the teachers, staff, and students. Cathryn mentioned, "everybody had their own lane, but you had each other's backs" (Interview 1). Jonathan further emphasized this feeling by mentioning that he and the team of assistant principals meet informally constantly throughout the day, as well as having designated time to grow professionally as an admin professional learning community, always looking for opportunities for growth.

In addition to looking for their own opportunities for growth, the administration team regularly looks for opportunities to assist their teachers and teacher leaders in their own professional growth journeys. Bryan stated,

> the leadership here has afforded me a number of opportunities in incremental steps to take on more and more. And I feel very blessed by those chances that they took on me and encouraging me and pushing me to do things that even I wasn't sure I wanted or could do. And that's who they are and that's what they have always been. And I absolutely feel like they have continued to help me grow and prepare me whatever the

next   step is in my career. 100%. (Interview 2)

Tana also mentioned that she felt as though the leadership team at Johnson had assisted her in her journey of growing as an educator and a leader. She said that administration recognizes when people want to grow, "and they try to feed opportunities to these people to help them grow" (Interview 2). Particularly, Tana said that many of the skills she uses daily in her instructional coach role, "when I look back…I was given chances to work on those skills before I got into this role" (Interview 2).

Administration also pours into teachers in their current roles and positions, striving to meet their needs so that they can, in turn, pour into students. Cathryn mentioned that that if ever there were situations where something was not working, it was time to implement a change to fix it:

> I do feel like it was my job to lead that we were going to make a change and to say, there's a captain of the ship…but then after that, when everybody told me what they need, I had to drop back and make sure it could happen so that they could do their jobs. Because they were the teachers…they had the relationship with the kids…it was my job to give them whatever they needed to make that happen. (Interview 1)

Supporting teachers in their pursuits with their students and with their struggles was a discussion in participant interviews. I recall the many times that I attended meetings with Cathryn, individual or small group, in which she asked the question "what do we need to do? How can we help?" And the answers to those questions were written down, and there was follow through. I remember calling Cathryn on the phone during our unprecedented virtual school period at the end of the 2020 school year. It was an incredibly difficult time for teachers and was obviously a stressful time nationwide. But, once again, the support that I felt from administrators was unbounded. Whether it was particular guidance on curriculum choices, or simply needing to call and let out frustrations about the difficulties of school from home, I felt like our leadership team delivered.

In discussing administrators' interactions and strategies for building relationships, participants often reflected on qualities the leadership team possesses, and how these qualities played a role in building those administrator–teacher relationships. Table 9 presents the domain of these attributes.

Table 9
Attributes of Administration

1. Semantic Relationship: Attribution
2. Form: X is an attribute of Y
3. Example: Trusting is an attribute of administration

Included Terms		Semantic Relationship	Cover Term
Constant	Good Listener		
Trusting	Passionate		
Caring	Visible		
Open	Honest		
"Finger on the pulse"	Relationship Centered	Is an attribute of	Administration
Caring	Positive		
Supportive	Respectful		
Loving	Helpful		
Passionate for maintaining the culture	"Having our backs"		

Structural Question: What attributes do participants assign to Johnson's administration?

The relationships formed between administrators and other members in the school make the staff feel like they have a say in how the school approaches challenges and goals. Cathryn and Stan both discussed in their interviews that first and foremost, teacher perspectives should be considered. Cathryn talked about how her interactions with various groups were always positive because they always left with an action plan. She said that she specifically sought out teacher input when looking at implementing new policies or procedures, emphasizing "let's go ask the people where the rubber hits the road, instead of just whipping it on people" (Interview 1). These interactions where teachers have opportunities to provide feedback builds teacher morale and makes them feel valued within the school. Tina discussed how whether it is through interacting

with colleagues, department chairs, or administrators, "we have the opportunity to let our voices be heard" (Interview 2).

I recall standing at hall duty with a veteran social studies teacher who now has been teaching for 21 years. It was early in my educational career, and this teacher was one that from an outside perspective, does not make small talk. But for some reason, this morning instead of standing quietly from 7:45–8:05 monitoring students, we were chatting about the school year. He asked me something along the lines of how my school year was going, and I mentioned how inclusive and positive I felt like everyone was around me. He replied with a comment about having served under 5 principals, but that he had never had an experience like this one, with this leader, and this school. He impressed upon me that it isn't always like this, and that we were lucky that we got to work in a place with such strong leadership. To this day, I think of this conversation and continue to appreciate working where I do, with the leaders I have.

Creating a Culture

> It's not just telling people what the Knights Creed is. But it's living with integrity, making sure that your actions are aligned to the things that you say you believe. And so that's where the hard work of establishing that culture took place. And it's never over.

– Stan, Interview 1

It's never over. Culture is forever something that should be maintained and nourished, just like a living organism. And while the administration and leadership team play a large role in establishing the culture at Johnson, there are also many events and activities that participants discussed when looking at how the culture is established and maintained. Table 10 presents the domain of activities listed by participants.

Table 10
School Events for Establishing Culture

1. Semantic Relationship: Function
2. Form: X is used for Y
3. Example: Class meetings are used for establishing culture within the school.

Included Terms		Semantic Relationship	Cover Term
Academic programs	Backpack program		
EL program	Friday lunches		
Welcome back breakfast	Teacher appreciation week		
Welcoming new staff	Class meetings at start of school		
Knights Gotta Eat	Wellness committee		
Displaying the Knights Creed	Silent Knights fund	is used for	establishing culture within the school
Football/Faculty picnic	Give a jersey to your teacher day		
Cart of candy at Halloween	Trusted adult initiative		
Announcements	Mentor/Mentee program		
Knight Talks	Lunch for CTAE pathway completers		
Encouraged opportunities for professional development	Spreading school wide messages through the leadership team		

Structural Question: What school events and activities are used for cultivating school culture within the building?

Many of these programs are not unique to Johnson, such as the trusted adult initiative and the academic and EL programs that are offered within the school. But there are also events such as the give your jersey to your teacher day, or the football/faculty picnic that were examples participants cited as elements that help foster positive school spirit and a healthy atmosphere. Additionally, the mentor/mentee program in particular is essential in providing new teachers a support system to successfully grow as a teacher, or to learn the nuances of Johnson's policies and procedures. Julie, a member of the mentor committee, mentioned, "we get teachers straight

out of college, and we get veteran teachers, but I have had very few new teachers who did not instantly pick up on the…yeah, this is a family" (Interview 1). She mentioned that in addition to talking about who's in charge of buses, or where to make copies, or where to park, they also feed them, socialize, and get to know where our new hires are from and more about them as a person. These efforts perpetuate the feeling of community within the building and helps make the new employees feel welcomed.

One particular activity that was mentioned in many of the interviews was the morning and afternoon announcements. Scott emphasized,

when we have guests or we have other teachers come in and they hear things on the announcements like, I love you, have a great day, talk about being strong and courageous. When we hear our principal getting on and wishing every student a happy birthday that day…taking a moment to build character through character focus, phrases for the month…when people come in, they know that they're in a place where kids are loved. They know they're in a place where kids are going to be successful, because the teachers, everybody here is buying into the idea that we can make a difference for the kids.

(Interview 1)

Participants across the board emphasized that it was recited every single day. What especially stood out to participants was that every day, students are told that they are loved. Stan said he was often asked why he made a point of being on the intercom in the mornings, why was it so important that it was his job and not someone else's. His response was, "I always felt like it was important for the students to know who the leader of the building is" (Interview 1). Cathryn reiterated,

he wanted people to hear his voice…And he told them that he loved them. Every day,

he'd tell those kids he loved them. And…he did love them, and they believed he loved

them...you always hear that about they won't care until they know you care about them.

Well, every kid in that school knew he cared about them. (Interview 1)

These days, it is Jonathan's voice that students hear every day, emphasizing that he believes in our students, that he cares about them, and that this is a place where they are loved. Bethanie emphasized Jonathan's care and attention, "he's sincere. He loves these kids" (Interview 1). She said that the culture of kindness, compassion, and love begins at the top with the principal. The morning and afternoon announcements are an opportunity to remind students and staff daily that they are a valued part of the culture at Johnson.

Gaby pointed out that to her, the morning and afternoon announcements were setting her schedule for the day, starting and ending with consistency. She said it also reminded her that leadership was there, that they were present. Every day inside the walls of Johnson, the following words are repeated over the intercom, and as John pointed out, oftentimes are recited by the students themselves:

Honesty, Respect, Personal Responsibility, Using your Talents to make a Positive

Difference. This is what we believe, this is our Creed, and this is what makes us one

united nation. Be safe when you leave here today. Be strong and courageous. We love

you. And Go Big Blue.

Every single day, students and staff hear the principal or an assistant principal over the intercom, twice a day, telling them that they love them. Faith commented, "I know other schools had like little sayings, but they did not know them. They did not know the exact way the announcements were said every morning" (Interview 1). Over my time at Johnson, these words have appeared in

numerous graduation speeches and at football games, demonstrating that the impact of these words reached further than the classrooms.

Other activities mentioned in the interviews that provide the administration an opportunity to have facetime with the students and build relationships through communication included the Knight Talks and the class meetings at the beginning of school. Knight Talks were pre-recorded videos of Stan engaging students with topics that he wanted to personally talk about with them, such as the history of the school, particular character focuses, or addressing incidents that had happened in the building, whereas class meetings are held yearly to set the expectations for the school year with each class of students. Both events provided an opportunity for leadership to set the expectations for students, something that is an essential part of the Johnson culture. Other events allow leaderships to celebrate with students, such as the lunch they held for the Career, Technical, and Agriculture Education (CTAE) pathway completers. Jonathan discussed one student in particular, watching the growth he had made from his freshman to senior year, "hearing his teacher reflect on the job that he has done, as well as the positive impact that he has in class, speaks to the growth that we believe in here, the growth of young people" (Interview 1).

There were a few particular committees and processes that were mentioned that emphasized the importance of building leaders within the school. Bryan discussed that not only did the administrative team have a vision but also they used their department heads and other teacher leaders in the building to be the mouthpiece of those visions (Interview 1). Stan mentioned the following as important "check-ins" that he would lean on to capture the pulse of the building: school improvement team meetings, department head meetings, and PLC meetings. He also mentioned that the hiring process was an important piece of facilitating a positive culture

in the building. Stan stated, "you want to talk about culture? Hiring is one of the most important things that you can do for your school culture" (Interview 1). He went on to state that it was important that everyone be involved in that process: assistant principals and department chairs included. Stan emphasized that it was important not only to find people who were going to be a good fit within the culture but also to look for individuals who would challenge the culture and make it better.

Additionally, participants mentioned ways that the administrative team conducts teacher appreciation within the building, such as pushing a cart full of candy around the hallways at Halloween to deliver treats to teachers, the annual welcome back breakfast, or the faculty cookout. These engaging and inclusive events help make teachers and staff feel valued. Bethanie asserted that these ideas originate with Jonathan. She said she helps make them a reality, but that he works hard to make teachers feel appreciated, that his goal is to celebrate them at a minimum once a month. From my own perspective, it certainly helps. It helps to walk into the teacher's lounge and see hot chocolate provided for you on a rainy day, or to not have to pack a lunch because of a faculty cook out. It helps make the daily stress and strain of the job feel just a little less exhausting.

In addition to specific events within the school, many participants discussed community events that contribute to the culture at Johnson. Table 11 presents the domain of these events.

Table 11
Community Events for Establishing Engagement

1. Semantic Relationship: Function
2. Form: X is used for Y
3. Example: Guest speakers are used for encouraging engagement between the school and its community

Included Terms		Semantic Relationship	Cover Term
Guest speakers	Hispanic parent nights		
Literacy nights	50th anniversary party	is used for	encouraging engagement between the school and its community
Thanksgiving	Cinco de Mayo		
Club presence within the community	Career & Business department's mock interviews		

Structural Question: What school activities are used for cultivating community engagement?

The most commonly discussed community event was the Johnson tradition of the Thanksgiving and Cinco de Mayo celebrations. Within our community, many of our parents come from a nation that does not traditionally observe Thanksgiving. So, when the end of November rolls around, as an observation and celebration of how much the school appreciates our parents and all that they do in our community, the Johnson faculty and staff provide a large Thanksgiving meal for the parents within our Hispanic community. The EL department does an outstanding job organizing the sign up, and every slot of mashed potatoes and stuffing and turkey (among other items) is always filled. The EL department then sets up a buffet line one evening, serving the food to our parents and families, ranging anywhere from 100 to 300 people in attendance. The Johnson community and faculty consider it an opportunity for the sharing of cultural traditions, and a time for offering our thanks and appreciation. Rene commented that he enjoys this tradition, "we celebrate our parents and then they show us a little bit of love also" (Interview 1). The other part of the tradition comes in May, with a Cinco de Mayo festival during a school day. The Hispanic parents and families within the community bring authentic and home

cooked dishes from their culture and celebrate teachers during teacher appreciate week. A Mariachi band is hired, and teachers go out during their lunch period to a delicious spread of tamales, rice, pupusas, and posole (among other items), and spend their lunch outside the front lobby, enjoying the fresh air and the amazing community built with parents and families. Once again, it signifies a sharing of cultural traditions and strengthens the community relationships.
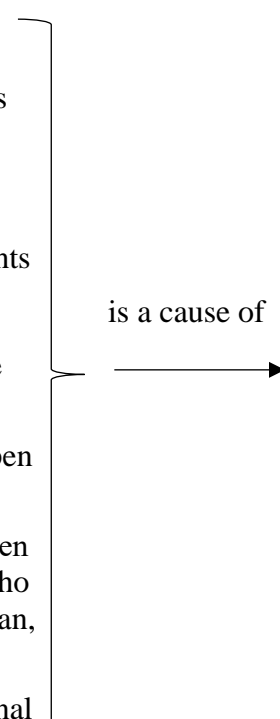
In addition to these special holidays, the parent liaison at Johnson hosts monthly events for the Hispanic community promoting ways to be involved in their children's education. Some recent nights included topics such as explaining the requirements for graduation, inviting librarians to help parents sign up for a library card, and creating parent logins for the online grading platform to help monitor student grades and missing assignments. The work, effort, and intentionality that goes into these meetings helps create a safe place for parents to ask questions and create a community.

Other events include inviting guest speakers and participants from the business world to come perform mock interviews and career presentations to students in the CTAE department. These events provide students an opportunity to experience various post high school options and find out what skills are essential for them to be successful in these areas. Topics such as interview skills, arriving to work on time, and time management were some of the ideas covered, emphasizing the importance of soft skill development for entering the work force. These events continue to build culture within the building, demonstrating that the school looks for opportunities to care for making students successful in their pursuits after high school.

In addition to specific events that are housed at the school or in the community, there are other contributing factors mentioned that speak to the creation of Johnson's school culture. Many of these items have been discussed throughout this chapter already but are still important to

include as included terms listed by participants, as well as other items that have yet to be

mentioned. Table 12 presents the domain of factors contributing to school culture.

Table 12
Factors Contributing to School Culture

1. Semantic Relationship: Cause-effect
2. Form: X is a cause of Y
3. Example: Genuine interactions is a cause of school culture.

Included Terms		Semantic Relationship	Cover Term
Behaviors modeled by leadership	Knights Creed		
Lunchroom custodians	Genuine interactions		
Positive supportive teachers	Special programs		
Admin to teachers, teachers to students, students to students	Teacher buy in, students buy in	is a cause of	school culture
Strong leaders	Students respect the Knights Creed	→	
Everybody is engaged in something	Being willing to be open and communicate		
Supportive student body	"Your culture will often take on a quality of who your leaders are" (Bryan, Interview 1).		
Starts and ends with administration	Presence of instructional coaches		

Structural Question: What factors contribute to creating school culture?

One of the pivotal elements that helped create the culture at Johnson was that faculty and

staff were "bought in." Scott emphasized,

> The kids are bought in, the teachers are bought in, the admin are bought in…it creates a
>
> very, very unique culture where everybody is working together to better themselves. And
>
> so, it's not just about the good administration we have, or the phenomenal teaching staff

that we have. We have a school that's bought in on all fronts. And I think that is

ultimately what creates this place that feels like home. (Interview 1)

This concept of buy-in on all fronts was talked about multiple times throughout the interviews.

Jonathan mentioned, describing that it helps set the tone among the faculty, because there is a

"common language" that everyone is using and perpetuating, modeling their behaviors and

conversations around the Knights Creed. When discussing with Stan how he felt like that buy-in

was generated, he mentioned that it all comes from self-empowering the people within the

building to make a difference within the school. In discussion of the Knights Creed, Stan said

that he emphasized to teachers that he was entrusting them with the Creed, to use it in their

lessons and in their classrooms and to model its components. But it was not delivered in a micro-

management style. He emphasized,

it has to do with the principal or the leader's ability to empower folks and to develop

trust…you've got to give people the freedom to make the vision become a reality.

Certainly, you have to set parameters, that's important. But you have to let folks know

that you trust them with that. (Interview 1)

The trust created between administration and the faculty is an essential part of the culture at

Johnson.

Through some of the factors and activities discussed, a culture was developed at Johnson

that fostered a positivity and growth mindset within the building. However, as Jonathan

contended, "a culture is not static. It's something that has to be nurtured each and every day and

monitored and maintained, looking for areas for growth" (Interview 2). Participants mentioned

many activities, policies or actions that are taken at Johnson to help sustain the positive culture

and atmosphere. Table 13 presents the domain of strategies for sustaining Johnson's culture.

Table 13
Sustaining Johnson's Culture

1. Semantic Relationship: Means-End
2. Form: X is a way to Y
3. Example: Setting high, consistent expectations is a way to sustain culture

Included Terms		Semantic Relationship	Cover Term
Having consistent leadership	Being respectful of each other's time		
Everyone contributing	Working towards the same goal		
Continually working towards improvement	Focusing on academics over sports		
Using the Creed to correct behaviors	Incorporating student leadership		
Recognizing birthdays at faculty meetings	Using the Creed in classrooms	is a way to	Sustain culture
Having open door policies with parents	Setting high, consistent expectations		
Discussing areas for growth	Helping teachers understand "why"		
Meeting with stakeholders outside the school	Leading through example		
Recognizing teachers at faculty meetings	Leading through relationships		
Including a variety of inputs	Knight of the Creed each month		

Structural Question: What actions and policies help sustain Johnson's culture?

Setting high and consistent expectations is an important element of sustaining Johnson's culture. Tana emphasized that it was these high expectations that help create the culture of learning in the classrooms:

It doesn't matter who our kids are or how much money their parents make, everybody is

capable. And we expect everybody to achieve. Everybody will learn, everybody's

capable of learning. Everybody will do this. We are Johnson. This is what we do.

(Interview 1)

Bryan also discussed the high expectations that exist within the building. He emphasized that though Johnson has a culture of family and of a home, the standards are set high for teachers and for students.

Additionally, not only are high expectations set but also teachers are equipped with strategies for success and are supported when areas of growth are identified. When certain topics need to be addressed with regards to meeting expectations, it is always done with a level of respect and with honesty. Scott mentioned, "everything that is said to us has always been on the forefront of honesty, it's always been on the forefront of trying to build the organization" (Interview 1). The honesty piece is instrumental in developing a level of trust among the faculty and staff. Bryan emphasized that when administrators would step in to work with teachers who were struggling, it was always framed from a view of "here's what you need to work on…how can I help you with this?" This sentiment was mirrored in other interviews as well, Katie and Tina emphasized that they always felt like conversations about areas for growth were handled with respect, and that they came with strategies and ideas for implementation. Additionally, Cathryn noted the intentionality behind having everyone on board to work together toward the same goal, and the importance of sharing the *why* with teachers to help create teacher buy-in: "if they don't think you're there to help them, I don't think people want to row the boat in the direction you're going" (Interview 1).

Another important element that was emphasized is the importance of incorporating student leadership and celebrating student successes. There is a student council that meets

regularly with the principal to discuss initiatives within the building. Jonathan stated, "I've always understood that the best organizations are those that are run from within, that it's not the principal" (Interview 2). He mentioned that his ultimate goal is for students to be ambassadors of the Creed, spreading that positive energy and promoting those high expectations from within. Additionally, the school recognizes a student athlete of the month (one young women and one young man), as well as a Knight of the Creed each month. These recognitions are nominated and voted on by faculty and staff, highlighting students in the community that are making a difference and exemplifying the Creed. As evident in these aspects of student participation within the school, as well as previous discussions in this chapter, one of the essential ways that culture is sustained within the building is using a model of behavior formulated around the Knights Creed.

The Knights Creed

> I feel like the repetitiveness, and it being posted everywhere kind of drills it into your brain. So, it's just like the branding of the school, is what I felt like when I was in it. I feel like Johnson was like 'Johnson, subline, The Creed'… it was an essential part of defining what the school was.

> – Faith, Interview 1

The expectations of everyone who walks into Johnson High School are heavily based around upholding the Knights Creed: Be honest, be respectful, be personally responsible, you are blessed with talent, use it to make a positive difference. When Stan and his team of administrators crafted those four tenants, they were striving for those values to

> drive the culture in our building. It would set the tone in the building. But we know that it couldn't just be window dressing…we knew we were going to put it up…we knew we were going to put it in the hands of every teacher…but we also knew that the hard work was going to be articulating that every day…and not just in the words we used, but in the

way we carried ourselves. And we felt like it was also really important to communicate to

everybody in the building that the Knights Creed was a set of standards that wasn't just

for kids. We were going to hold ourselves accountable, too, as adults in the building. We

were going to exemplify honesty, respect, personal responsibility, and dedication to

service. (Interview 1)

For teachers, the Creed became an important element of PLC meetings, setting the basis for

establishing norms within department and colleague collaboration. Schoolwide meetings are

expected to exhibit a feeling of respect and honesty. And within the hallways, adults model those

behaviors. John mentioned, it's the expectation of everyone who walks in the school, "and

everyone knows it" (Interview 1).

Additionally, the Knights Creed plays a pivotal role in setting expectations for student

behavior and discipline within the school. Teachers use it when reinforcing or correcting

behavior in the classroom, and it is likewise used as a tool in every single discipline meeting an

administrator has with a student. All administrators who were interviewed emphasized the

practice of using the Creed for disciplinary matters, "your behavior today…how did that

exemplify the Knights Creed" (Stan, Interview 1). Tina mentioned that it always went beyond

just stating it. Not just, you broke the Creed, "this is what you did, this is why it breaks it, this is

how we can change our behavior" (Interview 1). Furthermore, because the Creed is so well

practiced within the school, participants stated that it results in fewer discipline problems across

the board. Shannon compared the positivity within the student community to previous schools

that she's been a part of, claiming that there were far fewer issues that she dealt with on a regular

basis when working at Johnson. Shannon emphasized,

having the Knights Creed displayed, repeated, and enforced is a big part of it. And I think

the students are proud to be a part of that. Like, they know…they see it at sporting events

and when they play against other schools…and they know what Johnson has and that it's

different than everybody else's. But again, I think the administration is the backbone in

that. They're the ones who have to enforce it and it starts with them and it ends with

them. (Interview 1)

Because the Creed is consistently modeled and represented throughout the building, it establishes

that common expectation. Cathryn mentioned that during a district review, when students were

asked about the school rules that they follow in the building, many of them responded that they

did not have rules, that "we have a Creed here…we run by the Creed" (Interview 1).

Many schoolwide events highlight different aspects of the Knights Creed. The school has

a dedicated daily reading time that used to be called Silent Sustained Reading, an initiative to

help increase student literacy skills. A few years ago, a panel of teachers approached the

administration about changing the name, to promote higher levels of engagement for the

students. The name was changed to "Read for the Creed" time, tying in the importance of

literacy to our existing school beliefs. Furthermore, a few years ago, there was a change to the

nomination process when selecting representatives for the Homecoming and Prom court. Instead

of simply nominating students, each nomination (young woman or young man), is expected to

have an example of how that representative exhibits a tenant of the Knights Creed. This practice

reinforces the expectations at Johnson. Additionally, Jonathan stated that we try to develop

relevance for students to apply the Knights Creed to their lives, and that "it's not just something

that ends when the last bell for the day ends" (Interview 1). The Creed is reinforced in all extra-

curriculars at Johnson and can be used in student lives outside of the building.

According to former students, the Knights Creed and their experiences at Johnson have impacted them in their lives after Johnson. Faith said that though not all experiences at Johnson were positive in her time there, in her current atmosphere, she tries to find people who exhibit the same skills and attributes as those who she thinks contributed to the good parts of Johnson's culture. She went on to say that "the caring culture of those good people also makes me feel like there are adults that will still be proud of me when I inevitably barely pass some classes this semester" (Interview 1). Though she faced challenges while at Johnson, Faith reiterated that there were multiple people who were always in her corner at Johnson, and that the Creed being reiterated on a daily basis was a nice, consistent presence. Additionally, Gaby stated that, for her "Johnson always felt like home" (Interview 1). She mentioned that she regularly uses elements of the Knights Creed in her daily life, seeking ways to demonstrate respect and personal responsibility throughout her school life and work life. In addition to the Knights Creed, she draws off her positive relationships with teachers: "I know I can still probably go to my teachers and coaches and know that I can talk to them about anything and everything" (Interview 1).

Stan said that if he had it to do over again, he would have pulled in more people to reach consensus about what those values would have been. He and his team established the Creed one day over the summer while cleaning out a supply closet in the school, when there were no teachers in the building. But the values they chose and the cultural shift they set in motion was instrumental in creating the positive atmosphere that many participants discussed in this study. Furthermore, Jonathan emphasized that the middle school that feeds into Johnson has since adopted the Knights Creed within their own building, and that other schools in the county have also adapted their own culture statements to set a cultural tone in their own schools. The expectations centered around the Knights Creed established a common language, common goal,

and common beliefs for anyone who walks into Johnson High School. As John stated, not only is

it quoted twice a day or posted on the walls, but also

> it continues on through how we interact with each other as faculty and how we interact
>
> with our students and we model for them what good interactions and healthy interactions
>
> look like…so hopefully, they in turn can internalize that and do it for themselves as well.
>
> (Interview 1).

The Knights Creed has been a pivotal piece of the culture at Johnson, emphasized by every

participant in the study.

The Mathematics Department

> This is one school more than any other school I've been at, where I feel like everybody
> works together. They're willing to work together. They want to work together. They
> share ideas. It's made a big difference.

– Shannon, Interview 2

Apart from whole school reform initiatives that are integrated within the building, such as

the goals of the School Improvement Plan and the areas of focus targeted by the Wellness

Committee, there are specific changes that affect the mathematics department. In the time I have

been at Johnson, we have experienced four, state-directed curriculum changes in the department,

with a new one on the horizon within the next 2 years. This feeling of an ever-moving academic

target has been a challenge that Johnson mathematics teachers have had to continuously

overcome by developing new content, adjusting lesson plans, and restructuring their classes to

facilitate the success of their students. In addition to tasks that revolve around the

implementation of new content, the mathematics department has other teacher responsibilities

that they encounter on a daily basis. Table 14 depicts the domain of mathematics teacher

responsibilities mentioned by participants.

Table 14
Mathematics Teacher Responsibilities

1. Semantic Relationship: Strict inclusion
2. Form: X is a kind of Y
3. Example: Creating instructional materials is a kind of math teacher responsibility.

Included Terms		Semantic Relationship	Cover Term
Creating instructional materials	Using instructional strategies		
Differentiation	Grading		
Meetings	Copies		
Staying organized	Knowing where students are academically		
Meeting students where they are	Parent contacts	is a kind of	math teacher responsibility
Running clubs	Collaboration		
PLCs	Department meetings		
SIT meetings	Lesson planning		
Teaching	Coaching		
Keeping up with emails	Being visible		
Organizing meetings	Keep students responsible for their own learning		
Testing	Identifying areas of growth		

Structural Question: What responsibilities do math teachers have?

These responsibilities demand much time from teachers, especially when teaching six classes a day, with 1 52-minute planning period. Additionally, while striving to meet the high expectations set within the building, mathematics teachers are also consistently setting goals to better themselves, and better the education of their students. John and Scott both mentioned setting goals for developing better organization skills, while Tina shared that her focus included infusing a variety of strategies into her daily lessons, specifically during the closing component

of her lessons. Table 15 shares these items, along with other goals that math teachers shared as

ways they hope to increase the efficacy of their classrooms.

Table 15
Mathematics Teacher Goals

1. Semantic Relationship: Strict inclusion
2. Form: X is a kind of Y
3. Example: Better organization is a kind of goal.

Included Terms		Semantic Relationship	Cover Term
Better at organization	Better use of effective closing strategies		
Consistently get better	Reevaluate every lesson and assignment each year		
Finding what works best for me	Make a connection with my students	is a kind of	math teacher goal
Increase students' mathematical language fluency	Working on home/life balance		
Having my kids read more in math	Teaching students to persevere through problems		

Structural Question: What specific goals do math teachers have?

Many of these goals are centered around personal passions or ways math teachers can

increase their effectiveness as instructors, and some math teachers mentioned in their interviews

that they felt better equipped in pursuing these goals because of resources that they are provided

with at Johnson. Scott mentioned, "we have people here that are pouring into use to help us grow

as teachers. That's very appreciated" (Interview 1). Other math teachers also mentioned the

support they receive from instructional leaders in the building, including instructional coaches,

administrators, and the media specialist. Scott went on to discuss how the help provided by

others in the school helps him feel safe when trying new things because "it's not a sink or swim,

it's swim with help, because there's so many people here that are willing to lend a hand, or a

flotation device" (Interview 2). Katie mirrored this sentiment, "it's easier to take risks, because I

know there's people there to help me if I want to try an activity, there's someone that's willing to help me with it" (Interview 1).

In addition to their goals, there was also discussion throughout the interviews with math teacher of challenges that arise within the field of education. Challenges discussed by math teachers included when students do not put forth their full effort, as well as time management. Nevertheless, strategies were also discussed for how to work through these challenges. Tina emphasized the importance of reaching out to someone, stating that she never felt alone in her endeavors. Rene stated that in working toward motivating his students, he might consider using some strategies from PL that is delivered at the school: "there's a bunch of good strategies there that I didn't know about, and with having such little time for myself and to go and research, that helps me out a lot" (Interview 2). Despite challenges or various areas that different mathematics teachers identified for growth, they expressed that they feel supported in pursuing these goals either individually or as a collective group. As mentioned earlier, building relationships is a cultural emphasis echoed throughout the halls of Johnson. Within the mathematics department, collegial relationships are essential to teachers' successes in pursuing goals, choosing best practices for teaching their students, and simply enjoying the daily lives of their careers. Many participants described the mindset of "we're all in this together." Scott went on to emphasize that "teachers go through life with you. I mean, it's a little hard not to when I spend more time here in the building than I do awake at my own house…the teachers become a part of our everyday life" (Interview 1). Table 16 presents the areas discussed within forming collegial relationships.

Table 16
Building Relationships with Colleagues

1. Semantic Relationship: Means-End
2. Form: X is a way to Y
3. Example: Collaboration is a way to build relationships with colleagues.

Included Terms		Semantic Relationship	Cover Term
Collaboration	Fellowship		
		Is a way to	Build relationships with colleagues
Celebrations	Professional meetings		

Structural Question: According to participants, what are strategies for building relationships with colleagues?

The data collected on building collegial relationships was extensive, and thus better presented in the taxonomic table below, showing how different areas of relationship building take place among colleagues within the mathematics department.

Table 17
Taxonomic Analysis of Building Collegial Relationships

Building Collegial Relationships	Fellowship	Eating Lunch
		Hallway Chats
		Telling Jokes
		Creating friendships
		Teachers are not isolated
	Collaboration	Divide and Conquer on lesson plans
		Sharing experience
		Sharing strategies and ideas
		Communication
		Brainstorming ideas
		Helping each other
		Constructive Criticism
	Professional Meetings	PLCs
		Cross-content PLs
		Instructional Coach support

		Horizontal alignment
		Vertical alignment
	Celebrations	Emails of support/congrats
		Baby shower
		No Egos
		Not out to be better than each other

The relationships formed in the mathematics department rely on a community of trust and care. Teachers recognize that by helping each other improve, the department is ultimately going to get stronger, creating more opportunities for students to be successful. This attitude provides support for each other in achieving personal goals, or in just getting through the daily tasks of being a teacher. Scott mentioned that when trying to learn best practices for how to achieve his goals, "I look at people around me. I look at those successful in that area…and I try to mimic those strategies" (Interview 2).

A lot of these areas of relationship building were instrumental in how teachers feel in a daily basis. Thus, I discuss some of these areas more in depth in the following section, examining how these relationships and the culture at Johnson impact mathematics teacher experiences.

Effect on Teaching Experiences

> As soon as you share the load with someone, even if they don't know how to help you directly, then they can tell you who else to go to…and sometimes just having another partner in crime kind of makes you feel better and helps you get through it.

> – Tina, Interview 2

Although mathematics teacher job responsibilities and expectations can often be overwhelming and exhausting, overall, the mathematics teachers in this study described positive feelings when discussing their daily experiences, their workplace interactions, and the feelings they had concerning their jobs. Nearly every teacher said at some point in their interview, "I just

love my job." Though another standard curriculum change is on the horizon and standardized

tests are not going anywhere, mathematics teachers found that the culture within the building

helped create a positive atmosphere in which they enjoyed coming to work every day. John said,

"there hasn't really been a morning that I have gotten up and dreaded coming to work"

(Interview 1). He went on to emphasize, "loving where you work makes it really easy to do the

work" (Interview 1). Table 18 presents the domain of how teaching in a positive workplace

influences teachers' daily experiences and workplace interactions according to participant

perspectives.

Table 18
Effect on Teachers

1. Semantic Relationship: Cause-effect
2. Form: X is a result of Y
3. Example: Creates positive outlook is a result of positive school culture.

Included Terms		Semantic Relationship	Cover Term
Creates positive outlook	Empowers teachers	is a result of	positive school culture
Improves communication	Establishes comradery		
Improves student outcomes			

Structural Question: What impact does positive school culture have on teachers?

Because there was so much data that was organized around the investigating how the

positive school culture influences teachers' experiences, I further organized this data into a

taxonomic structure. Table 19 depicts further details of how teachers are affected by the

environment they work in, organized according to the different categories identified in the

domain.

Table 19
Taxonomic Analysis of Effect of School Culture

Teachers' Perception of Positive Influence of School Culture	Creates positive outlook	"it's a good workday"
		Excited to come to work
		Excited to try new things
		I feel lifted-up
		Everyone enjoys being here
		Better levels of motivation
		Don't fear that something will go wrong
		Happy here because of the people
		Trust-Building atmosphere
		People always have smiles on their faces
		Teachers love their jobs and love their kids… I see that very evidently
	Empowers teachers	Freedom in classroom
		Easier to take risks
		We know we can push kids to reach higher milestones
		More comfortable and confident in what I do
		Try to emulate what I feel from colleges and administration
		Level of trust motivates me to do my best work
		Don't want for anything
	Improves communication	I can mention anything to anyone, and they would listen
		Stronger connections with students
		Student education is better when teachers are communicating
		Transition away from teaching in isolation
	Establishes comradery	If something goes wrong, someone will help
		Feel in it together
		"it's a place where everyone is welcome, and they know it when they walk in because they can sense it" (Scott, Interview 1)
		Going through the same thing together
		Don't want to go anywhere else
		We have people pouring into us as teachers
		Everybody is working together to better themselves
		Teachers feel like their working alongside administrators
		We celebrate each other
		Even when people leave, there's still a bond
		Think of yourself as part of the whole

		Feel comfortable with one another
		People are happy to help, willing to do whatever it takes
	Improves student outcomes	Makes students feel valued, like they have something to offer
		Students know what Johnson has and that it's different
		Students have a sense of identity, decrease in gang activity
		Students know what is expected of them
		Students want to learn
		Infrequent misbehavior

One of the biggest takeaways when analyzing the data around how the culture affects

mathematics teacher experiences was the discussion around a culture of collaboration and

comradery. Each teacher discussed the sharing of materials, working together either as PLCs,

with their teacher friends, or with the instructional coaches, and how helpful it is to share in the

responsibilities of planning curriculum that is engaging and approachable for students. Shannon

emphasized that the instructional coaches "regularly reach out to ask if we need help in anything

that we would need help in, and to further our learning and abilities to teach…there's a great

support system here. That's not everywhere" (Interview 2). She also stated that her key advice to

any teacher is to work together to be a part of the whole, so that you can take as much burden off

yourself as possible. Shannon emphasized that not all schools have departments that are willing

to work together, citing egos as a potential reason, but "if you're willing to work together and

divide and conquer, then you take a whole lot of work off of yourself, which allows time to enjoy

teaching rather than sit in planning all the time" (Interview 2). Scott reiterated that the

collaboration of the math department is particularly helpful when trying to work toward

achieving goals:

> the math department…is so unified in teaching vertically and horizontally that we are
>
> able to support each other with our goals. …If we have a teacher who is amazing at

utilizing word problems in the classroom, they're going to share those strategies, or our

instructional coaches are going to bend over backwards to get into the classrooms with

the teachers to help them either grow themselves or grow their students. …I don't know

many other schools that work as closely as the teachers here do. To make sure that each

teacher is successful. (Interview 1)

Across the board, teachers were grateful that the level of trust and friendship within the

department lead to the sharing of resources and strategies, which is particularly helpful when a

teacher is new to the department. Katie reflected on her first-year teaching and how helpful

teachers around her were:

I've had friends that have gone to different schools…they've had no help and the teachers

were just kind of like "you figure it out, I had to figure it out when I was a first-year

teacher." We don't do that; I don't want to do that. I really appreciate the community feel

that we have at Johnson. (Interview 1)

Collaboration has come to be an expectation in the mathematics department, an expectation that

everyone is willing to rise to, subscribing to a "better together" mentality.

Another common thread throughout mathematics teacher experiences was that teachers

felt trusted by administrators to do their jobs, and to do their jobs well. Shannon emphasized that

trust from administrators "makes me feel more confident like somebody's not constantly looking

over my shoulder because they're confident that I'm doing my job, and that I'm doing a good

job" (Interview 1). It also allows for teacher autonomy in the classroom, and for individual

teachers to teach in their own style of teaching. John said that he is glad he has teacher

autonomy, because his style of teaching many vary from others in the department: "I don't want

to say [administration] is hands off…it's really more of an environment of trust, where they hire

people and have faculty who they trust to do their job and do their job well" (Interview 1). Creating that culture of trust makes teachers feel empowered and are more likely to ask for help when needed. Many teachers commented that they felt like they could go to each other, or instructional coaches, any time assistance was needed in their classroom, or when they wanted a new strategy to use in their lessons. Creating a culture of trust enables teachers to take those leaps into the unknown. Katie also mentioned that she felt like in addition to growing as a teacher in her classroom, that there are regularly programs in the county that support teachers in developing the skills for their extended careers. She mentioned an instructional leadership program, the gifted endorsement program, and the ESOL endorsement program. These are just some of the ways that the district and the school provide support for teachers' long-term efforts in achieving their professional goals.

Additionally, many mathematics teachers mentioned daily lunches and hallway conversations as opportunities for building friendships and providing support to one another. Katie said that these moments give teachers an opportunity to share their struggles, and that it's comforting when other people are going through the same thing. Scott mentioned that it is these informal interactions that work toward "building that sense of family" (Interview 1). Teachers step out in the hall between classes to yes, monitor students, but also to spend time with one another and check in on life outside of work. In addition to these small, daily interactions, teachers mentioned celebrations as a way that brings a caring atmosphere to the workplace. Rene mentioned that through events like a baby shower for his family, he feels supported by the department in all areas of life:

> I enjoy coming to work because of my colleagues…because they care. And I know I can
> see that they care. About me, about my family. So, that's definitely something that keeps

me motivated to remain part of this team. That's our culture, we help each other out. We

are there for each other, I feel. So that's why I love coming to work at Johnson. Even

when I'm tired. (Rene 2)

Through fostering positive relationships, collaborating together for courses, earning the trust of

administrators, and caring about one another, the mathematics teachers overwhelmingly report

positive feelings and experiences in the workplace.

School Comparisons

> What makes Johnson so different and so much better is the community, the people, and
> what the schools stands for and what the values and beliefs are.

> – Jonathan, Interview 1

Collectively, participants had experience at more than 20 different schools outside of

Johnson. There were schools that some participants had positive and uplifting remarks about,

where life circumstances were the main reason for their relocation. The majority of experiences

that participants had at other locations however were not as positive. Table 20 presents the

descriptions that participants provided of their previous schools.

Table 20
Comparisons to Other Schools

1. Semantic Relationship: Strict Inclusion
2. Form: X is a kind of Y
3. Example: Admin was hands off is a kind of description of another school.

Included Terms		Semantic Relationship	Cover Term
Admin was hands off	Lack of support from admin		
"What can I find wrong with you?"	Admin was not present		
Focused on numbers over kids	It felt like you against the students		
Principal did not know my name after 6 years	High turnover of teachers		
Hired as a coach before you were hired as a teacher	Admin was not approachable		
Admin supported students' side of the story instead of the teachers'	Took over planning periods most days	Is a kind of	Description of another school
Not receptive to new ideas	Very business like		
"Got you" culture	Students could "get away" with anything		
Math department was not as cohesive	Within department, felt like I was more by myself		
An environment where people loved their school and their kids	Military academy		
You're just a number	Common threads of good leadership		
Wonderful	Principal knew student names		

Structural Question: How did participants describe other schools they had been a part of?

Although there were positive elements that were highlighted in participant narratives,

such as when the principal knew the names of students or that there was an evident love for

students present in the building, the majority of experiences shared by participants were not positive. Teachers and staff felt as though they were not supported by their administrative team, were not in a place where collaboration was emphasized, and did not feel like they had allies among them in tackling the pressures and challenges of education. Many participants made stark contrasts between their feelings at previous schools and their positive interactions at Johnson, further emphasizing the positive, pervasive atmosphere that exists within the building.

Summary of Analysis

What is the school culture of Johnson High School? How do members of the school community describe its culture? What, according to their perspectives, are integral pieces of the culture? From their perspective, what contributes to the creation and sustaining of the culture?

The data presented in this chapter included perspectives from 17 employees at Johnson High School, me included, and their views on the description and creation of culture within the school. In answering this first research question, the following domains were presented: descriptions of school culture, attributes of Johnson's culture, cultural emphases, building relationships with students, building relationships with teachers, attributes of administration, school events for establishing culture, community events for establishing engagement, factors contributing to school culture, and sustaining Johnson's culture. Each of these areas added important details to the discussion surrounding school culture at Johnson and constructed a holistic image containing points of view from various departments in the building: administrators, leadership team members, support staff, former students, and mathematics teachers. The amount of data presented was in hopes of providing a "thick description" to the reader (Geertz, 1973).

Participants presented Johnson's school culture as having many positive qualities, describing it as welcoming, loving, caring, and respectful, among other attributes. The participants discussed a variety of positive interactions that they have had within the building, which ultimately set the tone for how they characterized the school culture. When generally describing school culture, there were a variety of mentalities adopted, for instance, discussing a student or teacher's feelings within the building, basing the definition of culture on common beliefs and values, or describing the identity or branding of a school. When participants specifically looked at Johnson's culture, the words chosen were consistently upbeat and positive. Some of the ideas mentioned throughout interviews included a feeling of family, community, home, or that "people mattered" (Bryan, Interview 1). Participants shared narratives that illustrated compassion and collaboration, adding to the holistic image.

One of the most integral elements of Johnson's culture mentioned by participants is the emphasis on building relationships with others in the building. As one of the four cornerstones of The Thoughtful Classroom Teacher Effectiveness Framework (Silver Strong & Associates, 2014), building relationships has been an important part of how new teachers are trained at Johnson, how classroom interactions are modeled, and how community is created within the school. Stan emphasized, "instruction is critical. It's one of the most important things that we do. But instruction doesn't take place over people. It doesn't take precedence over people. You've got to build relationships with people" (Interview 1). While the bar was set high, and expectations were established within the school, participants discussed that building relationships set the foundation for other successes to follow. Other important elements of Johnson's culture described by participants include caring for the whole child and helping one another within the building on a personal and professional level. Whether that presents as a meal train being created

for someone who is going through a hardship, a "Knights Gotta Eat" fundraising event to raise

money for Silent Knights, writing notes of encouragement to one another, or any of the other

ways that people feel supported within the walls of Johnson High School, participants described

a culture of a family and a cultural emphasis of meeting the needs of each individual, adult and

student alike. Additionally, a large part of the culture at Johnson is centered around adopting a

growth mindset. Administrators, teachers, and support staff within the building are continually

looking for opportunities to improve the practices of their jobs. Participants at all levels

discussed how PLCs are used for discussion of growth, and how teams are established to help

each other in pursuit of achieving goals or overcoming challenges.

There are many elements that go into the creation and sustainment of Johnson's school

culture. One emphasis throughout much of the data was the role of the leadership team within the

school and the encouraging leadership styles of administration. Feelings of support were

consistently echoed throughout participant interviews, providing details of how various leaders

in the building had affected their daily experiences or the trajectory of their careers. Scott

mentioned that he had always been attracted to strong leaders and that every leader he has had at

Johnson always "led from the heart" (Interview 1). Participants described that leaders in the

building want to help teachers, they want to help students, and they want to make the culture

stronger. In addition to having an open-door leadership style and being a common visible

presence in the building, many participants discussed the attributes of administrators and how

their personalities influence how they handle situations. Tina commented,

> I think some of it is the actual personality of the people in charge because our
>
> administrators are very caring people outside of the work environment. So then when you

bring them inside, and they're in charge of people, they're still going to be that same

caring person. (Interview 1)

Intentional strategies were enacted by administration to cultivate a feeling of support amongst

the faculty and staff, and the members of leadership who were interviewed provided some

insight into how that drive influenced various decisions made in the building. The administrators

each discussed the many dynamics at play within a school and how ultimately, they strive to help

provide teachers and students the means necessary to achieve success.

Other important elements of establishing and sustaining school culture at Johnson were

the activities and events that are hosted within the building, and amongst the community.

Administrators make a goal to do regular acts of kindness, whether it be a hot chocolate bar in

the teachers' lounge or a faculty cookout for a Friday lunch, and to help teachers feel appreciated

and celebrated. The various types of programs at the school are meant to facilitate student

success at all achievement levels, scaffolding support in appropriate ways for each group of

students. Additionally, events with parents in the community such as Thanksgiving, Cinco de

Mayo, and monthly hosted parent workshops encourage families to be involved in their

children's education and facilitates the celebration of our multicultural population.

In addition to these in-house and community events, participants discussed other key

factors that contribute to the school culture, including setting high expectations for everyone

within the building. These expectations stem from the Knights Creed and are reiterated through

various avenues in the building: announcements, examining PLC data, attending professional

learning and trying new ideas, and encouraging and assisting one another on the growth of their

classroom.

What are the experiences of mathematics teachers within the context of school culture?

In investigating the second research question, perspectives from seven mathematics teachers, myself included, were used to examine how working as an educator within the culture that has been created at Johnson has affected their experiences. Domains that added to the discussion for this question include mathematics teacher responsibilities, mathematics teacher goals, building relationships with colleagues, influence on teachers, and comparisons to other schools. Discussion in these different areas provided details about the demands of mathematics teachers' jobs at Johnson, how they feel about their jobs, and strategies they employ to build relationships with one another, cultivating a culture of community and friendship.

A teacher's job runs the gambit of responsibilities: grading, lesson planning, contacting parents, copies, meetings, student feedback—the list goes on. In addition to day-to-day responsibilities, participants also discussed events like professional learning and their own professional goals, which add to the never-ending action tasks that come across a teacher's desk. Participants described some of their personal goals as developing better organization systems, increasing effective use of closings, learning how to increase student ownership in their classroom, and becoming more adept with technology. Most participants could in turn articulate ways that they had been supported in working toward these goals at Johnson. Examples of specific support mentioned include assistance from instructional coaches, professional learning opportunities, and mimicking strategies modeled by leaders in the building. One theme that was evident throughout the data was the presence of a team mentality within the department.

The mathematics team at Johnson has truly developed into exactly that: a team. Participants discussed that while managing the overwhelming workload of being a mathematics teacher, the collaboration and teamwork within the department aided them in their day-to-day

jobs and responsibilities. Participants emphasized friendships within the department, helpfulness, caring for one another, and support in all areas of their lives. These qualities of the department were demonstrated through various activities, including lunches, assistance in classrooms, baby showers, PLC meetings, and encouraging conversations. Not only does the high level of collaboration within the department help with time management and work/life balance but also the participants mentioned that the closeness with which the mathematics teachers work motivates them to try new things. Given that resources and coaching opportunities are available to mathematics teachers on a regular basis, teachers feel empowered in their classrooms to take risks and create opportunities for personal and professional growth. Ultimately, the common goal of the teachers within the department is to improve the lives of their students, whether that be from a mathematical perspective, establishing a "trusted adult" relationship, or preparing them for life after high school.

The positive culture at Johnson influenced the ways that mathematics teachers feel about their jobs. Almost all participants discussed that they enjoyed their jobs. Challenges presented by participants included stress about standardized tests and unmotivated students, but still feelings of harmony and care were emphasized. The areas of influence discussed by teachers included creating a positive outlook, empowering teachers, improving communication, establishing comradery, and improving student outcomes. Numerous examples illustrated by participants emphasized that overall, the culture at Johnson had a positive impact on their day-to-day experiences.

Closing Remarks

The time spent investigating the culture at Johnson and the experiences of the mathematics department provided multiple perspectives in looking at what the educators and

staff at Johnson are doing well within their school and their community. The analysis of the data synthesized these perspectives into a cohesive story voicing narratives and experiences from the participants while addressing the research questions of the study. As Scott so simply put in his last interview, "this place is special" (Interview 2). This presentation of data shares a little bit of the special feeling that so many people feel within the walls of Johnson.

CHAPTER 6

SUMMARY AND DISCUSSION

To start this chapter, I present a brief summary of the study, including a revisit of the research questions and the conclusions drawn from the data. I discuss limitations and delimitations of the study. I then discuss recommendations for future research. I conclude the chapter by discussing the implications for teacher education that can be drawn from this research.

The Study

I began teaching at Johnson in August of 2011. During my time employed there, I have experienced many challenges of teaching: unrealistic expectations, challenging students, a constant change in mathematics curriculum, inefficient time management, and most recently, a worldwide pandemic that resulted in some sort of virtual teaching for over a year. Nevertheless, during that time, I have never felt alone in my endeavor as a teacher, nor have I felt unequipped to handle these challenges. I credit much of my successes and growth as a teacher to the environment in which I have been a part of, which has provided me support and opportunities to try new things. I have been crafting this study and how to conduct it for years, developing a plan for bringing the story of Johnson's culture to light and highlighting how my growth as a mathematics teacher has been influenced by the culture itself.

The purpose of this study was to investigate the successes of Johnson High School regarding school culture. Using an ethnographic case study (LeCompte & Preissle, 1993; McCurdy et al., 2005; Spradley, 1979; Stake, 1995) situated within a theoretical a lens derived from anthropology (Boas 1920s, see Darnell et al., 2015; Geertz, 1973; Goodenough, 1971; Spindler, 1994) and symbolic interactionism (Mead, 1934/1992), I investigated the creation of culture at Johnson and how school culture affects mathematics teachers' experiences.

Specifically, I used ethnographic methods to examine different elements of school culture, including its description, key components, and how it is created and sustained. Furthermore, I studied the mathematics department and how participants within the department described their experiences at Johnson and how Johnson's culture affects those experiences. I used participant interviews, my own personal narrative, and experiences that I have had through observations this past year and by being a member of this culture for 11 years to synthesize a comprehensive look at the school culture and its influences. The research questions that guided this study were

1. What is the school culture of Johnson High School?

    a. How do members of the school community describe its culture?

    b. What, according to their perspectives, are integral pieces of the culture?

    c. From their perspective, what contributes to the creation and sustaining of the culture?

2. What are the experiences of mathematics teachers within the context of school culture?

The motivation for this study was intrinsic in nature. After being a part of Johnson's culture for so long, I wanted to examine "what is going on here?": an important question in qualitative research. By employing an anthropological perspective as my backdrop for research, this perspective allowed me to examine particularly what is working within the building and within the mathematics department, as opposed to a traditional scientific research quest of solving a problem. Additionally, by selecting participants who vary in their roles within the building, as well as their experiences in education, the study captured multiple points of view.

When beginning the process for this study, I considered a variety of lenses through which to examine the data, such as critical race theory, cultural historical activity theory, and

postmodernism. Nevertheless, using multiple theories within anthropological research and symbolic interactionism resonated with my worldview and with my goals for this study. Symbolic interactionism informed how I investigated the interactions and relationships within the mathematics department, closely examining the social interactions mathematics teachers had with one another and the relationships they formed within the department. Theories that informed this study from an anthropological perspective include Boas's theory of cultural relativism, Geertz's interpretative theory of culture, Goodenough's concept of propriospect, and Spindler's theory of cultural therapy. Cultural relativism emphasizes the native point of view, stressing the importance that I include perspectives of people who are from within Johnson's culture, but also that I remain cognizant that each person brings their own personal culture, or propriospect, to the study, including myself. Cultural therapy emphasizes the importance of being aware of these cultural biases, including my own. Additionally, my own perspective inserts a level of interpretation between me, the researcher, and the data, thus providing enough data for readers to draw their own conclusions was essential.

Although this study is biased in its design, as I am only reporting the positive findings from the study, I helped establish the credibility and consistency of my data results by including data from 17 participants. These participants' narratives and examination of culture emphasize how positive experiences can be fostered and facilitated in a school. The narrative of Johnson is an important one to tell, as success stories are not celebrated enough within the education realm. And these stories of success are not only mine but also were contributed to and echoed throughout the data of 16 other people within the school.

Discussion

In the data collection portion of this study, participants provided background information for their experiences within education, and each took part in one or two semi-structured interviews where they discussed their views about the culture in the building and their own experiences throughout their careers at Johnson. Some participants shared artifacts that they believed demonstrated the culture they were describing, which are shared in the Chapter 5. The conclusions here summarize the findings of this data collection and analysis process. My investigation into research surrounding school culture provided me with insight about elements that either enhance or inhibit the creation of culture, as well as the effect that school culture has on individuals within the building. Trends in the literature show that it is important to build positive school cultures to facilitate a goal-oriented and collaborative atmosphere among staff, help mitigate low teacher morale and high teacher burnout, create an environment in which students are academically successful, and satisfy the need to belong (Babelan et al., 2019; Khan & Ali, 2019; MacNeil et al., 2009; Myer, 2012; Teasley, 2017). Many of these elements were mirrored in the data at Johnson High School. The mathematics department demonstrated much appreciation for the collaborative environment amongst their fellow teachers and regularly discussed how the comradery and teamwork made them feel supported. Teachers at Johnson also discussed the idea of "dividing and conquering," facilitating a consistent collaborative mindset that helps with the responsibilities and tasks of being a teacher. This mindset situated within a consistently changing set of mathematics standards and expectations helps alleviate some of the stresses that come with teaching new mathematics content every couple of years. Additionally, while the mathematics teachers emphasized how they worked together within the department and relied on one another for everything from fellowship to sharing resources to inspiring novel

teaching ideas, many participants also reiterated that the reason the collaborative environment exists stems from the support they have from administrators. According to the data, the leadership team at Johnson facilitates a family-like atmosphere that is ultimately conducive to a teamwork and collaboration—whether that be by offering professional learning days by subject area, walking the halls and forming personal connections with teachers, or putting support systems in place so that teachers can try new things. Ultimately, the Johnson leadership team places building relationships at the forefront of all goals, all meetings, and all initiatives. Through this emphasis, they communicate the message to teachers and staff, and in turn to students, that working together as a family is the most effective strategy in our toolbox. In addition to confirming many themes present in the literature, as outlined in Chapter 2, this study adds to the literature by telling the story of a single case, adding additional perspectives to the stories that already exist. Geertz (1973) emphasized that studies in interpretive anthropology contribute to a collective body of work rather than advancing theory or picking up where other studies have left off. By integrating the perspectives of 17 participants (myself included) into one story, I present a holistic description of what is happening at Johnson, contributing to research discussing school culture and how mathematics teachers mitigate the stresses and demands of their jobs within a continuously evolving backdrop.

Participants described Johnson's culture as a positive, welcoming place where teachers and students strive to meet the expectations set before them. Programs are set in place to assist individuals in their journeys of growth, creating opportunities for energy to be infused into classrooms and new strategies to be implemented. One of the most critical elements within the building in creating culture has been the role of the leader, which supports existing literature. Participants described administrators as caring, empathetic, supportive leaders who consider all

individuals in the building before implementing reform or making school wide decisions. The administration team, both past and present, model collaboration and teamwork, encouraging teachers to do the same within their departments and content areas. Additionally, participants described the leadership team as being present and visible, helping create a sense of safety, as well as reinforcing their engagement with the faculty, staff, and students.

According to participants, there was a cultural transformation that occurred when the previous principal came to Johnson. His implementation of the Knights Creed was instrumental in establishing a cohesive culture, providing everyone in the building with a core set of values to live by and uphold. These values are emphasized regularly through announcements, through how behavior is addressed in the classroom, and through modeling a trickle-down effect: administrators model for teachers, who in turn model for students. Additionally, the relationship model that has been adopted at Johnson accentuates that building strong, positive relationships with students sets the foundation for academic success. These relationships are cultivated through teachers being intentionally present and engaged in their interactions with students, through caring for the whole child, and through teachers getting to know their students on a personal level. Relationships flourish when a community is built on trust. And the environment at Johnson has made teachers feel trusted and supported and has allowed them to foster a similar trust environment within their own classrooms.

Although it is important to establish a successful and healthy culture within a school, it is just as important to implement initiatives that sustain the culture. At Johnson, there are numerous events that are housed within the school, as well as within the community, that help sustain the culture within the building. Events such as schoolwide fundraisers create a sense of togetherness within the building and teacher appreciation events remind teachers that they are valued.

Additionally, the bridge between the school and the community is built through monthly

Hispanic parent events, holiday celebrations, and events such as Graduation Requirements Night,

which helps inform parents of critical information for their child's success. While there is always

room for growth in this area, and always notes for next time, the school actively works toward

engaging the community and having a stronger parent presence within the school. There are also

school programs and committees that facilitate a collaborative mindset within the school when

identifying areas of strength and areas of growth. The IB and JISA program establish high levels

of rigor for high achieving students and the EL program provides incredible support to Johnson's

Spanish speaking students, creating opportunities for outstanding growth. Additionally, the IB

and JISA programs have demographics that are representative of the whole school, and students

within the full diploma IB program have had a 100% successful pass rate for at least the past 5

years of data. Within the IB Mathematics Application and Interpretation course, the 100% pass

rate has been mirrored since the course began, with IB Mathematics Analysis and Approaches

having continual growth in their passing percentage each year since its inception. Thus, while

this study did not investigate all the particulars of students' academic success within the school,

there is certainly evidence of high levels of rigor and academic achievement. There are also

teacher programs and initiatives, such as the SIT, the wellness committee, PLCs, PL days, the

mentor/mentee committee, and the BLaST team, which actively work to help provide teachers

with new ideas, new strategies, and different ways of thinking about their classroom. These

programs and committees also provide outlets for teachers to seek guidance or work together to

improve their classroom structures or improve different targeted structures within the whole

school.

In specifically examining the mathematics department, many of these same feelings of positivity and support were reiterated. While a teacher's responsibilities, at times, seem endless, teachers find opportunities to set goals, and they find the resources to be successful in the pursuit of those goals. Collegial relationships help teachers share the loads of their day, whether it be related to their work life or their home life. Teachers described their interactions with their colleagues as positive, mostly from a familial and comrade perspective. When examining how school culture influences the experiences of mathematics teachers, teachers emphasized feelings of happiness, support, and like they are lifted up within the building. Not only did the teachers discuss that they feel supported when they try new things, but also multiple teachers stated that they were excited when doing so. By fostering a safe environment in which teachers actively pursue instructional growth, students reap the benefits of interesting and engaging lessons and invested teachers.

The positive atmosphere on the hall is celebrated and nurtured by its members, and in turn, everyone benefits from the cohesive group. In Rene's interview he jokingly asked me, "how did the math department get so cool?" He stated that he felt like it was like that before he arrived at Johnson. As I reflect over the past 11 years, I consider the transformation we have had just within our own department. For instance, sharing resources has been something the department has done since my first day as a teacher here, but I think about what that process has developed into. What was once an email or two with new ideas and activities to try has turned into shared drives with many commonalities in curriculum, teaching methods, and assignments for students. The mathematics department was meeting as content groups long before the expectations of PLCs were enforced, but formalizing that practice encouraged all teachers to buy in to what the beauty of collaboration can hold and how using test data to drive conversations

about student achievement did not have to be a competition. Every single test, every mathematics PLC puts their student test grade breakdown into a spreadsheet to discuss, analyze, and brainstorm strategies for remediation. This sharing is done not from a place of comparison, but rather from a place of encouragement. The department looks at how teachers can work together to use each other's strengths and learn from one another to achieve success in helping Johnson's students. These types of conversations about student growth, sharing strategies, and improving as teachers however can only happen if a culture of love, trust, and growth is established and nurtured. And as the mathematics department does not work isolated in a silo, it is essential that this culture be created and sustained within the whole school as well. Tina emphasized,

> the culture is just infectious…it spreads to everyone in the building, and you just can't get rid of it, and you don't want to because it's a positive culture. And I just wish more people would come and observe us so that they can see the positive culture, and do we have our problems? Yes, of course, all schools do. …but I think our success comes and stems from our culture and then that spreads to everything that we do after that.
>
> (Interview 1)

Although success can be measured in various ways with a plethora of standards, the success discussed in this study emphasizes the collective unity within a department and within a school, as well as the willingness to work together to create opportunities of learning and growth for Johnson students—and teachers.

Limitations/Delimitations of the Study

As discussed in Chapter 4, the limitations of a study describe the potential weaknesses that are outside of the researcher's control, while the delimitations are aspects selected by the researcher that limit the scope of the study (Theofanidis & Fountouki, 2018). In Chapter 4, I

discussed the limitation of my study being a single, unique case that is not necessarily able to be replicated. The story that has unfolded at Johnson is only one example of a positive environment being facilitated in a high school. Unlike quantitative research, it is not implied that the same procedures at another building would yield the same outcome. Another limitation discussed previously is that as both the researcher and a teacher at Johnson, my level of familiarity with the participants potentially affected their responses. Having developed friendships with many of the participants over the years, this may have influenced how they responded to questions and interview prompts. Chapter 4 also visits delimitations to my study, including time constraints, the decision to interview strictly mathematics teachers, and my decision not to conduct classroom observations as a method of data collection. Limiting this study to one department enabled me to provide data more thoroughly for that particular subject area, providing me the opportunity to become intimately engaged in the data and develop expertise in studying the department. Having been a member of this department for 11 years, having worked closely with most of the department faculty for their entire careers at Johnson, and digging deep into their narratives and personal experiences, I created a thorough view of the department by limiting the scope. Additionally, my selection of participants was a delimitation of the study. While I was able to incorporate a variety of views within the school, there were some subsets of people who are integral to the community that were not included, such as parents, bus drivers, custodial staff, cafeteria workers, and counselors. Although these selections were based on constructing a study that was of an achievable size, these choices limit the scope of my study.

Furthermore, another delimitation of my study is the decision not to incorporate student achievement data in this study. Student achievement data are often considered when measuring the success of a school. Additionally, school success often incorporates various other student

data measurements, such as student growth percentiles, graduation rates, or literacy benchmarks. These are important factors to consider when discussing what a school does well and the successes achieved within a building. And with my experience at Johnson, I have been a part of numerous meetings that celebrate the wins that Johnson has in each of these areas and identifies the opportunity for growth. But this data itself were not included in the data portion of this study, as I was not investigating student achievement in this study. This study examined the creation of culture and how that positively affects how mathematics teachers view their jobs from a social, emotional, and mental standpoint. It examined the importance of providing teachers with a culture in which they can thrive and have a healthy relationship with their work lives. Although student success and achievement are important elements to consider, this study had a different focus for identifying the "success" of a school. One final delimitation of this study, as discussed throughout its entirety, is the decision to report positive findings. While this study very much detailed what is working well at Johnson, it does limit the scope of the data by not mentioning areas of growth or struggles, either identified by participants or otherwise.

Recommendations for Future Research

The data in this study demonstrated that the culture at Johnson is a positive and healthy environment in which teachers feel celebrated and supported. This environment helps create an atmosphere of perpetual positivity and family. One recommendation for future research would be to look at how this culture influences student successes on an academic and emotional level. It is important that a school be successful in preparing students for their goals, whether that be academic success on standardized tests, college acceptances, technical school, or going into the workforce after high school. It would be an important study to examine how a culture like Johnson's prepares students for these goals, or how it affects student growth and progress,

examining data from the school's history on its success in preparing students for what comes next.

Additionally, it would be an important study to consider comparing perspectives of different schools to see if there are comparative factors that can be studied in the context of school culture and its influence on mathematics teachers' experiences. Once again, with standards changing and a curriculum shift within the next few years, it would be interesting to examine how different schools and different departments are responding to the new expectations that are being handed down to mathematics teachers. Bringing in middle school perspectives would also be important research that would add to the cohesive story surrounding school culture and the effect that it has on mathematics teachers' experiences. The middle school that feeds into Johnson is right next to the high school, and there is a wealth of information about how alignment from middle school to high school would increase positive culture, teacher morale, and student achievement. Overall, research into the surrounding community could help shed light into the overarching effect, or areas for future growth, regarding Johnson's school culture.

One final area of potential future research for this study would be collecting additional perspectives of former and present students. While two former students were included in my study, once again, their perspective or responses may have been affected by their relationship with me as the researcher. It would warrant further exploration to see how students feel about the culture of Johnson High School, their perception of the Knights Creed, and their own mathematics experiences during their time at Johnson, both while they are a part of it and after they graduate. In this particular study which encompassed many viewpoints, the two former students added to the greater discussion of Johnson's culture. It would be interesting to explore

student mathematics perspectives on a greater scale and identifying the mathematical perceptions

and mathematical successes of Johnson's student body as a whole.

Implications for Teacher Education and Leadership Development

There are three significant implications for future teacher education that can be drawn

from this study. The first is the emphasis that if you start with relationships, the rest will follow

(a statement that Stan made to me in my early days of teaching). Education and growth cannot

happen to its fullest potential in an environment where students do not feel loved, and where

teachers do not feel supported. The relationships that form within a school building are pivotal

for the success of everyone, especially the students. Each layer of relationship development is

essential in creating a culture of care and a culture of growth. Relationships help inform

educational spaces by empowering teachers to identify their students' needs and work toward

creating structures, policies, and procedures in which those needs are met. However, these

intentional practices are more substantial and more successful if teachers are supported by other

staff members within the building (including leadership) in their endeavors toward caring for the

whole child. The administration must pour into teachers, showing appreciation of them as

individuals and as professionals. Teachers must foster relationships with one another to create an

atmosphere of solidarity and teamwork. And teachers must create atmospheres in their

classrooms in which relationships are at the core of all learning. As Tina emphasized,

"relationships are the basis for everything we do" (Interview 1). The model of creating

relationships and thinking about individuals as human beings first is a cultural belief at Johnson

and is reiterated through the actions of the leadership team.

Relationship focused leadership is manifested in multiple ways. Outside of intentional

efforts to create and maintain a relationship, there is the belief of giving second chances, an

important emphasis that Stan stated in his interview. When teachers are struggling in their classrooms or with their teaching, rather than deciding that they "weren't cutting it," the question was first asked, "what have we done to support this person? How have we helped them get better?" (Interview 1). These types of interventions are crucial in teacher education—the safety nets that are in place for when teachers struggle and need a guided hand to make it to the next step. With the world of teacher education right now and how often teachers quit the profession, the important element of implementing supports in helping teachers develop is a pivotal part of the system. And if the culture has been maintained, and is cultivated to be a place of growth, these conversations originate from a place of love, which ultimately makes them more effective. In turn, teachers that see a model of giving second chances are more likely to implement this style of care in their classrooms.

A second implication for teacher education and leadership development is the importance of the hiring process. Stan emphasized that this is an integral part of creating culture within a building, and that there are many things to consider during this process. For Johnson, some questions he asked himself:

> Is this person gonna fit here at Johnson high School? Are they a fit with our beliefs, the Knights Creed, our work ethic? Are they going to be a team player? Are they going to be a part of the PLCs? Those things were important, but then the second thing that I think a lot of leaders miss and don't get is that you need to be looking for somebody that's going to challenge you and help change the culture and make it better. And so those were the types of individuals we would look for when we were hiring. Somebody that was going to be a good fit, but also somebody that was going to challenge us to be better. We were

always open to bringing on new people who can bring new ideas, new perspectives,

which in turn can help improve the culture of a building. (Interview 1)

The people who are added to a school's staff have a tremendous influence on the nature of what

happens in the building. By being intentional in hiring people who not only blend with the

school's belief system but also who challenge perspectives and offer alternate worldviews and

ways of thinking, the culture continuously develops and creates an atmosphere of cohesion and

inclusion. Both are essential components in developing children to be empathetic members of

society. The importance of hiring high quality educators that fit within the culture of the school

also translates into the importance of hiring quality administrators that fit within the culture of

the school. A pivotal piece of sustaining and growing the culture within a building is how the

leaders work together toward common goals and aspirations. The leadership culture developed

within a school is paramount in developing a positive and caring school culture, as demonstrated

in the literature (Babelan et al., 2019; Hinde, 2004; MacNeil et al., 2009; Rhodes et al., 2011).

A third implication for teacher education and leadership development is the importance

of creating a collaborative environment. Teachers in the mathematics department at Johnson

cited collaboration as a solution for many elements of stress and anxiety within their profession.

As the research shows, incredible demands have been placed upon mathematics teachers within

the last decade due not only to high stakes achievement measures, but also due to a revolving

door of standards, course changes, and new curricula. Mathematics teachers are consistently

funneled "back to the drawing board" to construct new pacing guides, lessons, formative

assessments, and other teaching materials. Mathematics teachers are also consistently having to

forge their own paths with regards to content resources, as states are regularly providing an

inadequate number of resources to teachers with each curriculum change. The incredible

workload that comes with learning new content and adjusting lessons are layered upon the regular demands of being a teacher, which are extensive on their own. However, as shown by the mathematics teachers at Johnson, by establishing a collaborative workspace, teachers could more efficiently use their time at work by sharing resources, they could improve their work/home balance, and most importantly, they could learn from each other. A collaborative space where teacher successes are celebrated and strategies are shared elevates everyone in the department, bettering the education for all the kids. At the end of the day, it always comes back to what is best for the kids.

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APPENDICIES

APPENDIX A

Invitation to the Study

Dear [Insert Name]

I hope you are doing well and are having a great school year thus far. As you may have known, I am currently a doctoral student at Georgia State University, where I am completing an ethnographic case study dissertation (under the direction of Dr. David Stinson) to describe the school culture of Johnson High School and how it impacts mathematics teachers' experiences. Throughout my experiences at Johnson (having been here for 10 years), I have come to feel as though researching this topic could provide a lot of insight into the greater topic of school culture, and how a positive atmosphere can impact a teacher's experiences in their schools.

I would like to invite you to be a potential participant for my dissertation research. If you are interested, please review the attached consent form and recruitment letter. Please feel free to contact me if you have any questions at 706-362-1154 or astarke0128@gmail.com. I appreciate your time and look forward to hearing from you.

Thank you,

Alex Starke

Georgia State University
College of Education and Human Development
Department of Middle and Secondary Education

Email: astarke0128@gmail.com
Phone: 706-362-1154

APPENDIX B

Informed Consent Form

Georgia State University
College of Education and Human Development
Department of Middle and Secondary Education

Title: School culture and mathematics teachers' experiences: A story of Johnson High School

Principal Investigator: Dr. David W. Stinson

Student Principal Investigator: Ms. Alexandra Starke

You are invited to take part in a research study. It is up to you if you would like to take part in the study.

Purpose

The purpose of this study is to describe the school culture of Johnson High School and describe the creation of Johnson's school culture. Additionally, the study explores how mathematics teachers' experiences are influenced by the school culture of Johnson High School.

Procedures:

If you choose to participate, you will participate in two interviews facilitated by the researcher, no more than 1-hour each, over the course of 1 month. The interviews will take place in your office or classroom, at a location of your choice, over the phone, and/or through an online conference platform (e.g., Zoom, Webex, Skype). Prior to the second interview, you will review your first interview transcript and you will be asked to share documents or artifacts that act as examples of your description of the culture of Johnson, or the influence it has had on your experiences there. This collectively should take no more than 1 hour of your time. After the second interview, you will receive a second interview transcript to review, which should take no more than 30 minutes. An additional 1-hour follow-up interview will be conducted if necessary. Thus, you will commit a total of no more than 5 hours of your time participating in the research process.

Future Research

Researchers will not use or distribute your data for future research studies even if identifiers are removed.

Risks:

In this study, you will not have any more risks than you would in a normal day of life. No injury is expected from this study, but if you believe you have been harmed, contact the research team as soon as possible. Georgia State University and the research team have not set aside funds to compensate for any injury.

Benefits:

If you chose to participate, you will not receive any compensation for participating in the research process. You may benefit from the knowledge gained from the research. You will also have the chance to share your experience of participating in the study of Johnson's school culture.

Voluntary Participation and Withdrawal:

Participation in this study is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may refrain from answering survey and interview questions or stop participating at any time.

Confidentiality:

We will keep your records private to the extent allowed by law. The following people and entities will have access to the information you provide:
- Dr. David Stinson and Ms. Alexandra Starke
- GSU Institutional Review Board
- Office for Human Research Protection

Your personal name will not be used or shared under any circumstance. Instead, we will use an identification number and corresponding pseudonym on all study records, forms, and published material. All interviews will be audiorecorded. All audio files and electronic information will be stored on Ms. Alexandra Starke's secure, password-protected computer. Obtained hardcopy material will be stored in a locked drawer in Ms. Alexandra Starke's home office. To protect privacy, the consent form information as well as the identification key associating the research participant's identification number and corresponding pseudonym will be stored separately from the obtained hardcopy material in a different locked drawer. Audio-recordings will be destroyed after they are transcribed, and the typed transcript will be destroyed 10 years from the date of each interview.

Contact Information:

Contact Ms. Alexandra Starke at 706-362-1154 or astarke0128@gmail.com and Dr. David Stinson at 404-413-8409 or dstinson@gsu.edu.
- If you have any questions about the study or your part in it
- If you have questions, concerns, or complaints about the study
- If you think you have been harmed by the study.

The IRB at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly with the study. You can contact the IRB for questions, concerns, problems, information, input, or questions about your rights as a research participant. Contact the IRB at 404-413-3500 or irb@gsu.edu.

Consent:

We will give you a copy of this consent form to keep. If you are willing to volunteer for this research and being audio-recorded, please sign below. Thank you.

_____
Printed Name of Participant

_____   _____
Signature of Participant   Date

_____   _____
Principal Investigator or Researcher Obtaining Consent   Date

APPENDIX C

Recruitment Letter

Georgia State University
College of Education and Human Development
Department of Middle and Secondary Education

Dear [insert name]

I am reaching out to you to see if you might volunteer your time and expertise as a member of Johnson's community to my research study. My study's proposed title is "School culture and mathematics teachers' experiences: A story of Johnson High School," under the direction of Dr. David Stinson. I am trying to recruit participants that have a variety of roles at Johnson, and you would contribute greatly to this study!

The purpose of my proposed study to describe the school culture of Johnson High School and describe the creation of Johnson's school culture. Additionally, the study explores how mathematics teachers' experiences are influenced by the school culture of Johnson High School. I will be conducting a qualitative study, researching the following research questions:
   (1) What is the school culture of Johnson High School?
         a. How is the school culture at Johnson High School described?
         b. How is the school culture at Johnson High School created and/or sustained?
   (2) What are the experiences of mathematics teachers within the context of school culture?

I am hoping to have participants that are involved in a variety of areas at Johnson, including administration, members of the leadership team, front office staff, student services staff, teachers, and former students.

Participation in this study is entirely voluntary. If you choose to participate, you will participate in two interviews facilitated by the researcher, no more than 1-hour each, over the course of 1 month. The interviews will take place in your office or classroom, at a location of your choice, over the phone, and/or through an online conference platform (e.g., Zoom, Webex, Skype). Prior to the second interview, you will review your first interview transcript and you will be asked to share documents or artifacts that act as examples of your description of the culture of Johnson, or the influence it has had on your experiences there. This process collectively should take no more than 1 hour of your time. After the second interview, you will receive a second interview transcript to review, which should take no more than 30 minutes. An additional 1-hour follow-up interview will be conducted if necessary. Thus, you will commit a total of no more than 5 hours of your time participating in the research process. I understand that this school year is particularly busy, so I will try to be as respectful of your time as possible.

If you choose to participate, be assured that I will use a pseudonym for your name in all forms and published materials. It is of the utmost importance to me to protect your rights as a participant in this research project. See the Informed Consent document included for more details regarding the research process.

If you have any questions regarding the project or your participation in it, please feel free to contact me at astarke0128@gmail.com, or 706-362-1154.

Thank you for your consideration in participating in this project,

Alex Starke

Georgia State University
College of Education and Human Development
Department of Middle and Secondary Education

Email: astarke0128@gmail.com
Phone: 706-362-1154

APPENDIX D

Interview Protocol Tool: Leadership

Date: Participant:

Time: Location:

Thank you for agreeing to be an interviewee for my study, investigating the school culture of Johnson High School and how it influences mathematics teachers' experiences. This interview will last approximately one hour and will be audio recorded. Upon conclusion of the interview, I will transcribe the interview and make any initial reflections or analysis on the transcript. This transcript and analyses will be sent to you to review, edit, and respond to as you see fit. Information in this interview will remain confidential, and upon transcription of the interview, the recording will be destroyed. If at any time you feel uncomfortable, you may refrain from answering questions or choose to no longer participate in the interview. May I proceed with this interview?

Questions and Probes:

1. Can you tell me a little bit about your position at Johnson?
    a. How long have you been in this role?
    b. What are some of the responsibilities that position entails?
    c. In this position, how do you interact with different groups of people in the building (for example, other administration, teachers, staff, students, etc.)?
2. Can you describe some of the interactions you have with others daily?
    a. Can you provide an example or story?
    b. Do these interactions normally elicit feelings of positivity, negativity, or somewhere in between?
    c. What makes you feel that way?
3. Have you ever worked at a school outside of Johnson?
    a. [If applicable] How long were you at these different schools?
4. [If applicable] Are there any ways in which Johnson is different than other schools that you have been a part of?
    a. [If applicable] Can you give me an example of what makes it different?
5. Can you walk me through what a typical workday looks like for you at Johnson?
6. How would you define the concept of school culture?
    a. [Potential follow-ups]

     i. Can you define that…

     ii. Can you describe that…

     iii. Can you expand on that…

     iv. Can you explain why you chose [_____] word/phrase?

7. How would you describe the school culture of Johnson High School?

  a. [Potential follow-ups]

    i. Can you describe that…

    ii. Can you expand on that…

    iii. Can you explain why you chose [_____] word/phrase?

  b. What three words come to mind when describing Johnson's culture?

    i. Can you give me an example of what made you choose that word?

  c. Can you tell me a story or two that exemplifies what Johnson is like?

    i. Potential probe: to help describe the culture/atmosphere.

8. Why do you think Johnson's school culture is that way?

  a. What do you think contributes to the creation of Johnson's school culture?

  b. What kind of intentional activities are in place to facilitate the creation of culture?

    i. To sustain the school culture?

  c. Who do you think contributes to the school culture at Johnson?

  d. Do you think there are any key individuals that contribute, or have contributed, to the creation of the culture in the time that you have been here?

    i. Can you describe how you think they have made an impact?

    ii. [if applicable] Can you describe their leadership style?

  e. Do you think there have been any key events that have contributed to the creation of the culture in the time that you have been here?

    i. How have those event(s) affected the culture in the school?

9. [If applicable] Can you describe the school culture at your previous school(s)?

  a. In what ways were they similar or different to the culture at Johnson?

10. Is there anything else that you can share that might provide some insight into the creation of culture at Johnson?

APPENDIX E

Interview Protocol Tool: Staff & Teachers

Date: Participant:

Time: Location:

Thank you for agreeing to be an interviewee for my study, investigating the school culture of Johnson High School and how it influences mathematics teachers' experiences. This interview will last approximately one hour and will be audio recorded. Upon conclusion of the interview, I will transcribe the interview and make any initial reflections or analysis on the transcript. This transcript and analyses will be sent to you to review, edit, and respond to as you see fit. Information in this interview will remain confidential, and upon transcription of the interview, the recording will be destroyed. If at any time you feel uncomfortable, you may refrain from answering questions or choose to no longer participate in the interview. May I proceed with the interview?

Questions and Probes:

1. Can you tell me a little bit about your position at Johnson?

    a. How long have you been in this role?

    b. What are some of the responsibilities that position entails?

    c. In this position, how do you interact with different groups of people in the building (for example, other administration, teachers, staff, students, etc)?

2. Can you describe some of the interactions you have with others daily?

    a. Can you provide an example or story?

    b. Do these interactions normally elicit feelings of positivity, negativity, or somewhere in between?

    c. What makes you feel that way?

3. Have you ever worked at a school outside of Johnson?

    a. [If applicable] How long were you at these different schools?

4. [If applicable] Are there any ways in which Johnson is different than other schools that you have been a part of?

    a. [If applicable] Can you give me an example of what makes it different?

5. Can you walk me through what a typical workday looks like for you at Johnson?

6. How would you define the concept of school culture?

    a. [Potential follow-ups]

      i.   Can you define that…

      ii.   Can you describe that…

      iii.   Can you expand on that…

      iv.   Can you explain why you chose [_____] word/phrase?

7. How would you describe the school culture of Johnson High School?

    a. [Potential follow-ups]

        i.   Can you describe that…

        ii.   Can you expand on that…

        iii.   Can you explain why you chose [_____] word/phrase?

    b. What three words come to mind when describing Johnson's culture?

        i.   Can you give me an example of what made you choose that word?

    c. Can you tell me a story or two that exemplifies what Johnson is like?

        i.   Potential probe: to help describe the culture/atmosphere.

8. Why do you think Johnson's school culture is that way?

    a. What do you think contributes to the creation of Johnson's school culture?

    b. What kind of intentional activities are in place to facilitate the creation of culture?

        i.   To sustain the school culture?

    c. Who do you think contributes to the school culture at Johnson?

    d. Do you think there are any key individuals that contribute, or have contributed, to the creation of the culture in the time that you have been here?

        i.   Can you describe how you think they have made an impact?

        ii.   [if applicable] Can you describe their leadership style?

    e. Do you think there have been any key events that have contributed to the creation of the culture in the time that you have been here?

        i.   How have those event(s) affected the culture in the school?

9. [If applicable] Can you describe the school culture at your previous school(s)?

    a. In what ways were they similar or different to the culture at Johnson?

10. How would you say that the school culture at Johnson influences your experiences as a teacher?

    a. (Potential probes if needed)

        i.   This could be your experiences with students.

        ii.   Your experiences with administration.

       iii.   Your experiences with your peers.

   b. Can you give me an example of a time that you felt like the culture of Johnson affected you in either a personal or a professional way?

11. Is there anything else that you can share that might provide some insight into the creation the culture at Johnson, or how it influences teacher experiences?

APPENDIX F

Interview Protocol Tool: Former Students

Date: Participant:

Time: Location:

Thank you for agreeing to be an interviewee for my study, investigating the school culture of Johnson High School and how it influences mathematics teachers' experiences. This interview will last approximately one hour and will be audio recorded. Upon conclusion of the interview, I will transcribe the interview and make any initial reflections or analysis on the transcript. This transcript and analyses will be sent to you to review, edit, and respond to as you see fit. Information in this interview will remain confidential, and upon transcription of the interview, the recording will be destroyed. If at any time you feel uncomfortable, you may refrain from answering questions or choose to no longer participate in the interview. May I proceed with the interview?

Questions and Probes:

1. Can you tell me a little bit about your time at Johnson?
    a. How long ago were you a student there?
    b. Can you think of a memorable experience from your time at Johnson?
    c. Can you walk me through what a typical day was like when you were a student there?
    d. How did you interact with other people in the building? (e.g., teachers, administration, your peers)?
2. Can you describe some of the interactions you have with other people within the school when you were at Johnson?

    a. Can you provide an example or story?

    b. Did these interactions normally elicit feelings of positivity, negativity, or somewhere in between?

    c. What makes you feel that way?
3. Can you describe your experiences with leadership while you were a student at Johnson?

    a. Can you share a story that demonstrates this type of interaction?
4. Can you describe your experiences with teachers while you were a student at Johnson?

    a. Can you share a story that demonstrates this type of interaction?
5. Did you ever attend a school other than Johnson?

    a. [If applicable] How long were you at these different schools?

6. [If applicable] Are there any ways in which Johnson is different than other schools that you have been a part of?

    a. [If applicable] Can you give me an example of what makes it different?

7. How would you define the concept of school culture?

    a. [Potential follow-ups]

        i. Can you define that…

        ii. Can you describe that…

        iii. Can you expand on that…

        iv. Can you explain why you chose [_____] word/phrase?

8. How would you describe the school culture of Johnson High School?

    a. [Potential follow-ups]

        i. Can you describe that…

        ii. Can you expand on that…

        iii. Can you explain why you chose [_____] word/phrase?

    b. What three words come to mind when describing Johnson's culture?

        i. Can you give me an example of what made you choose that word?

    c. Can you tell me a story or two that exemplifies what Johnson is like?

        i. Potential probe: to help describe the culture/atmosphere.

9. Why do you think Johnson's school culture is that way?

    a. What do you think contributes to the creation of Johnson's school culture?

    b. Do you think there are any kind of intentional activities in place to facilitate the creation of culture?

        ii. Did you ever notice any particular ways that leadership or teachers would intentionally make an effort in the area of school culture? Can you share an example?

    c. Who do you think contributes to the school culture at Johnson?

    d. Do you think there are any key individuals that contribute, or have contributed, to the creation of the culture in the time that you have been here?

        iii. Can you describe how you think they have made an impact?

        iv. [if applicable] Can you describe what made them memorable?

      e. Do you think there have been any key events that have contributed to the creation of the culture in the time that you have been here?

          v. How have those event(s) affected the culture in the school?

10. [If applicable] Can you describe the school culture at your previous school(s)?

      a. In what ways were they similar or different to the culture at Johnson?

11. How would you say that the school culture influences your experiences as a high school graduate?

      a. Has it influenced your experiences at the college level?

      b. Has it influenced your experiences at your job?

12. Is there anything else that you can share that might provide some insight into the creation the culture at Johnson?

APPENDIX G

Transcript Reflection Request

Dear [insert name]

Thank you for your continued participation in this study. Included in this email is the transcript of your recent interview, labeled with the date and name of interview.

As you read through the transcript, please highlight any part of the interview that you feel should be emphasized or that you would like to identify as the most pertinent to the questions asked or the purpose of this study.

Please feel free to use this as an opportunity to edit, delete, or expand on any of the discussions present in this transcript. Filler words and grammatical errors do not need to be corrected or edited. Instead, please ensure that the essence of each answer is an accurate representation of your thoughts and feelings. Sometimes, reading your own words and answers might cause feelings of self-consciousness. However, I value your words, your feelings, and your responses in these interviews.

Please let me know if you have any questions. Astarke0128@gmail.com or 706-362-1154

Thank you for your time and effort,

Alex Starke

Georgia State University
College of Education and Human Development
Department of Middle and Secondary Education

Email: astarke0128@gmail.com
Phone: 706-362-1154

Appendix H

Interview Protocol #2: Math Teachers

Thank you for agreeing to be an interviewee for my study, investigating the school culture of Johnson High School and how it impacts mathematics teachers' experiences. Upon conclusion of this interview, I will transcribe and make any initial reflections or analyses on the transcript. Then I will send those to you to review, edit, and respond to as you see fit. Information in this interview will remain confidential, and upon transcription, the recording will be destroyed. If at any time you feel uncomfortable, you may refrain from answering questions or choose to no longer participate in the interview. I ask that you do not reveal anyone else's identity or say anyone else's name. May I proceed with the interview?

1. Can you tell me a little bit about your philosophy of education, or view about the education system?
    1. Has your time at JHS influenced this in any way?
    2. What's your favorite part about teaching?
    3. What's the most frustrating part about teaching?
    4. If you could change one thing about your job, what would it be?
2. In your time teaching, what has been the biggest struggle that you've had to overcome?
    a. How did you overcome it?
    b. Is it something that you have to work at regularly?
    c. What strategies would you recommend to others that might be having the same difficulties?
    d. Has your time at Johnson provided an opportunity for progress in this endeavor?
3. Can you share some of your goals as a math teacher? Whether it's in the classroom, outside, etc.
    a. Has your time at Johnson had an impact on your making progress on these goals?
    b. (if applicable), how?
4. Do you think there are systems in place to regularly help teachers work towards achieving their goals and pursuing instructional growth?
    a. What are they?
    b. Do you think they're beneficial?
5. Do you see yourself eventually leaving the classroom in pursuit of other careers in education?
    a. What interests you about that route?
    b. Has your time at Johnson impacted that decision in any way?
    c. Has your time at Johnson impacted your preparedness in that endeavor?
6. Upon reflection of the transcript of your first interview, is there anything that you would like to discuss further, or expand on?
7. Any additional stories you can think of that speak to the creation of culture here at Johnson?

8. Any additional stories you can think of that describe what it's like to work here?
9. Any additional stories that speak to how you feel the culture and atmosphere impact your day-to-day experiences as a teacher?

Appendix I

Interview Protocol #2: Staff and Leadership

Thank you for agreeing to be an interviewee for my study, investigating the school culture of Johnson High School and how it impacts mathematics teachers' experiences. Upon conclusion of this interview, I will transcribe and make any initial reflections or analyses on the transcript. Then I will send those to you to review, edit, and respond to as you see fit. Information in this interview will remain confidential, and upon transcription, the recording will be destroyed. If at any time you feel uncomfortable, you may refrain from answering questions or choose to no longer participate in the interview. I ask that you do not reveal anyone else's identity or say anyone else's name. May I proceed with the interview?

1. Can you tell me a little bit about your philosophy of education, or view about the education system?
    a. Has your time at JHS influenced this in any way?
    b. What's your favorite part about your job in education?
    c. What's the most frustrating part about your job?
    d. If you could change one thing about your job, what would it be?
2. In your time in education, what has been the biggest struggle that you've had to overcome?
    a. How did you overcome it?
    b. Is it something that you have to work at regularly?
    c. What strategies would you recommend to others that might be having the same difficulties?
    d. Has your time at Johnson provided an opportunity for progress in this endeavor?
3. Do you think there are systems in place to regularly help teachers work towards achieving their goals and pursuing instructional growth?
    a. What are they?
    b. Do you think they're beneficial?
4. (Questions drafted here based on previous interview, follow ups).
5. Upon reflection of the transcript of your first interview, is there anything that you would like to discuss further, or expand on?
6. Any additional stories you can think of that speak to the creation of culture here at Johnson?
7. Any additional stories you can think of that describe what it's like to work here?
8. Any additional stories that speak to how you feel the culture and atmosphere impact your day-to-day experiences as a teacher?

APPENDIX J

IRB Approval Form

INSTITUTIONAL REVIEW BOARD

Mail: P.O. Box 3999	In Person: 3rd Floor
Atlanta, Georgia 30302-3999	58 Edgewood
Phone: 404/413-3500	FWA: 00000129

January 06, 2022

Principal Investigator: David Stinson

Key Personnel: Starke, Alexandra B; Stinson, David

Study Department: Middle & Secondary Education

Study Title: School Culture and Mathematics Teachers' Experiences: A Story of Johnson High School

Review Type: Expedited Category 5, 6, 7

IRB Number: H22289

Reference Number: 367707

Approval Date: 01/05/2022

Status Check Due By: 01/04/2025

The Georgia State University Institutional Review Board (IRB) reviewed and approved the above-referenced study in accordance with 45 CFR 46.111. The IRB has reviewed and approved the study and any informed consent forms, recruitment materials, and other research materials that are marked as approved in the application. The approval period is listed above. Research that has been approved by the IRB may be subject to further appropriate review and approval or disapproval by officials of the Institution.

It is the Principal Investigator's responsibility to ensure that the IRB's requirements as detailed in the Institutional Review Board Policies and Procedures for Faculty, Staff, and Student Researchers (available at gsu.edu/irb) are observed and to ensure that relevant laws and regulations of any jurisdiction where the research takes place are observed in its conduct.

Federal regulations require researchers to follow specific procedures in a timely manner. For the protection of all concerned, the IRB calls your attention to the following obligations that you have as Principal Investigator of this study.

1. For any changes to the study (except to protect the safety of participants), an Amendment Application must be submitted to the IRB. The Amendment Application must be reviewed and approved before any changes can take place.

2. Any unanticipated problems occurring as a result of participation in this study mustbe reported immediately to the IRB using the Unanticipated Problem Form.

3. Principal investigators are responsible for ensuring that informed consent is properlydocumented in accordance with 45 CFR 46.116.

   - The Informed Consent Form (ICF) used must be the one reviewed and approvedby the IRB with the approval dates stamped on each page.

4. A Status Check must be submitted three years from the approval date indicatedabove.

5. When the study is completed, a Study Closure Form must be submitted to the IRB.

All of the above-referenced forms are available online at http://protocol.gsu.edu. Please do not hesitate to contact the Office of Research Integrity (404-413-3500) if you have any questions orconcerns.

Sincerely,

Cynthia A. Hoffner, IRB Chair