Abstract

Not all students in our schools today are succeeding academically. As many as 17% of students do not graduate high school each year in the United States. The range for various sub groups looks worse as students with disabilities show as many as 35% not graduating. Universal Design for Learning’s (UDL) framework, when implemented with fidelity, supports all students. As UDL benefits all students, this study sought to understand the following: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? Labeling theory served as the framework for this qualitative study. Interpretive phenomenological analysis (IPA) along with an interpretivism paradigm was employed to understand the experience of five educators with the implementation of UDL in their school system.

Semi structured interviews produced four major themes and two key findings: (1) UDL improves student outcomes and prevents the marginalization of students with labels and (2) Implementation should be carefully planned. These findings offer scholars and practitioners alike a clear understanding of potential barriers to implementing UDL and strategies to leverage in order to launch a successful initiative. Most importantly, the why of UDL is made clear as student outcomes improve and fewer students are marginalized. This study concludes with immediate applications of the findings and long-term solutions to increase the use of UDL.

Keywords: elementary, implementation, labels, and Universal Design for Learning (UDL)
Dedication

“This is living.”

My grandfather, Joe Bushbaum, whose words are a simple yet profound reminder to reflect and be grateful.

This research is dedicated to my first teachers: Mom and Dad. I also dedicate it to my wife, Erika, and children, Jack and Ava, who continue to teach me what it means to be a good husband and father.
Acknowledgements

The focus of this dissertation would not be possible without my visit to Harvard during the summer of 2016 for a weeklong training on a topic that was new to me: Universal Design for Learning (UDL). Little did I know at the time, but that week would fuel my passion for UDL. So, thank you, Dr. Kevin Smith and Dr. Charles Smith, for sending a group of administrators to Harvard for the training. I am also indebted to Dr. Kevin Smith and Wilton Public Schools for supporting my studies at Northeastern.

Ella, thank you for inviting me to your district to interview some of your staff for my dissertation. You are doing amazing work.

Thank you to my dissertation committee: Dr. Kristal Clemons, Dr. Lynda Beltz, and Dr. Charles Smith. I greatly appreciate your time, feedback, and wisdom. I wish you the best.

Dr. Kristina Harvey, thank you for graciously editing my work. I greatly appreciate your time, feedback, and generosity.

To my buddy, Tom Cecchino, thank you for always taking an interest in my work, asking how I am doing, and listening to me talk about my passion/research on our long runs together.

Thank you to my parents and brothers for checking in with how I was progressing on my classes and dissertation. It helped to keep me focused.

I started this work in January of 2017. It has been a long and fulfilling journey. I save my final thanks, and last words typed in this dissertation, for the three most important people in my life. Erika, Jack, and Ava, thank you for all the ways you supported me through this process. I love you more than you can know. I look forward to our future and all the amazing things in store for us.
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CHAPTER 1 – INTRODUCTION

Problem Statement

How are America’s public elementary school students faring in our schools today? Are all students, regardless of ability or disability, receiving a rigorous education as expressed by the Individuals with Disabilities Education Improvement Act (IDEIA, 2004)? According to the National Assessment of Educational Progress (NAEP), which is charged with assessing what America’s students know and are able to do, the answer is no, as only 40% of fourth graders performed at or above the proficient level in mathematics and 36% of fourth graders performed at or above the proficient level in reading on the 2015 Nation’s Report Card (NAEP, 2015 reading; NAEP, 2015 mathematics). What does this mean? Hernandez (2011) found that of those children not reading proficiently in the third grade, one in six do not graduate on time from high school. Worse yet, for children at the lowest levels of reading, 23% drop out of school or fail to finish on time (Hernandez, 2011).

As evidenced above, there is a cause for concern regarding student achievement. Universal Design for Learning (UDL) might be one approach to show improved outcomes for all students. UDL consists of three major principles. The three principles form the framework of UDL and provide multiple means of engagement, expression, and representation with curriculum, assessments, and materials and have been shown to meet the needs of all learners (Al-Azawei, Serenelli, & Lundqvist, 2016; Meyer, Rose, & Gordon, 2014).

Purpose/Intervention Statement

The purpose of this interpretative phenomenological analysis study was to explore the impact of a UDL implementation on students, teachers, and administrators in an elementary school. Experiences of teachers and administrators is defined as their perception of the benefits
and detriments of UDL for improving student outcomes. By examining the various decisions that are made prior, during, and after a UDL implementation, teachers, school administrators, and researchers can learn best practices to emulate and roadblocks to avoid when implementing UDL as a framework to meet the needs of elementary students. With this knowledge, teachers and administrators can improve student outcomes, and teacher preparation programs can incorporate UDL on two fronts: First, as a way to reach all their students; and, second, as a new model of instruction for pre-service teachers to learn before entering employment.

**Justification**

The Center for Applied Special Technology (CAST), which is recognized internationally for their work to improve educational opportunities for all, created UDL as a framework that can be used by schools and teachers to support all learners by creating classrooms and lessons that open access to all no matter ability or disability (CAST, 1998; Spooner et al., 2007). Since its founding, UDL has been widely studied by scholars. McGhie-Richmond and Sung (2013) found two major themes in their study of UDL. First, teachers came to see that the UDL principles created environments where all are able to learn. Second, a shift was made in beliefs to create environments based on student needs rather than the students attending to teacher needs. There is evidence demonstrating some success from creating inclusive educational environments, however, there is little quantitative or qualitative research investigating the utility and success of UDL (McDonnell, Mathot-Buckner, Thorson, & Fister, 2001; Spooner et al., 2007). More recently, Al-Azawei et al. (2016) acknowledged that the empirical evidence for UDL is just beginning to be published, however, they expressed that based on their research, efforts to use UDL as a framework can provide opportunities for all students.
While studies on UDL exist, the articles span from early child education to postsecondary, with little depth or breadth at each level. Topics range from training to the use of technology; however, little research focuses on UDL in the elementary years. Also, as UDL research is limited to primarily North America in areas with very similar cultural and socioeconomic backgrounds, there is a need to fill this gap in the research (Al-Azawei et al., 2016).

**Significance and Context**

Imagine a beautiful new building with a grand staircase leading up to the entryway. Now, position yourself in front of that building with a friend who utilizes a wheelchair for mobility. You both have a meeting in this new space, and just before you head up, you realize there is no ramp or lift for your friend’s wheelchair. So, while you have access, your friend does not. Build a ramp and now you both have universal access to the building. UDL is based on the ideas of Universal Design (UD) in architecture where elevators, curb cuts, etc. provide options for people to access buildings (Black, Weinberg, & Brodwin, 2015; Meyer et al., 2014). UDL’s framework works by breaking down barriers for all students. For example, if the activity in the lesson is to create a story with a clear beginning, middle, and end, and the teacher provides no options other than writing by hand on a sheet of white lined paper, that teacher is not providing access to all students. Which student is prevented from showing what they know?

Maybe it is a student with a fine motor weakness, maybe it is a student with a visual impairment, maybe it is a student with a language processing disability, or maybe it is a student without a disability, but he or she lacks the engagement to write? UDL’s three principles offer students multiple means of engagement, expression, and representation in their classrooms so all have an opportunity to succeed (Meyer et al., 2014). So, instead of the student with the fine
motor weakness writing the story, they could use speech to text; the child with a visual
impairment could use a computer to enlarge the font on the screen, the child with a language
processing disability could have the lesson presented orally with text/audio to support their
needs, and the student who does not like to write could be offered options such as typing,
dictating, or recording their story on an iPad to demonstrate that they know the major features of
a story. Utilizing UDL can help students make greater academic gains when applied to literacy
instruction (Coyne, Pisha, Dalton, Zeph, & Smith, 2012). The point is to ensure that all students
have every opportunity to learn and demonstrate what they know, and hopefully, increase the
likelihood they are on grade level by third grade so their chances of graduating from high school
are higher (Hernandez, 2011).

Why is there a need for UDL? In “The Condition of Education 2018” it was reported that
in the 2015-2016 school year 13.2% of students ages 3-21 had a documented disability
(McFarland et al., 2018). Of these students, 34% were categorized as having a specific learning
disability (McFarland et al., 2018). As school is a print rich environment, their struggles with
reading are experienced, not just when learning how to decode, but throughout their day. Under
the three principles of UDL, technology can help by providing students with the option of
utilizing e-books (Huang, Liang, & Chen, 2012). These books have options to have the text
read, which can help a student who is struggling with decoding. So, when a student with a
reading disability is in science class they can hear the text read aloud about the concept of the
phases of the moon and work on the intended objective of the lesson, rather than continuing to
struggle because of their disability. The principles of UDL enable not only the 6.7 million
students with a documented disability access to the curriculum, but all students in America’s
schools (Spooner et al., 2007).
The United States is only graduating 83.2% of its public high school students (NAEP, 2015 Public High School Graduation Rates). If you deconstruct that number among various subgroups, you will find the following graduation rates: Asian/Pacific Islander-90.2%, White-87.6%, Hispanic-77.8%, Black-74.6%, and American Indian/Alaska Native-71.6%. The lowest percentage of 64.6% represents students with disabilities. In Connecticut, each dropout costs the state $500,000 over their lifetime (CCER, 2018). While there is no panacea to increase graduation rates, the research shows that UDL can be utilized to meet the needs of all students (Al-Azawei et al., 2016; Spooner et al., 2007). UDL may be one of many solutions to improve the chances that more students graduate and find employment in the workforce or enroll in a postsecondary school.

Access to a quality education is a right for all young people in the United States. However, based on previously mentioned test scores and high school graduation data, this basic right and moral obligation is not being met. Some groups are faring better than others. Not meeting this obligation has serious implications for these students. Unemployment rates for those without a diploma were 12.4% compared to 8.3% for those that graduated high school (Bureau of Labor Statistics, 2012). If we can understand best practices and potential barriers when implementing UDL in elementary schools then we can give teachers, administrations, districts, and policy makers the tools they need to help all students succeed not only in public schools, but also beyond the brick and mortar of the classroom.

Positionality

In 2015, only 83.2% of America’s public high school students graduated (NAEP, 2015 Public High School Graduation Rates). That same year, data from the National Assessment of Educational Progress (NAEP) showed only 36% of fourth graders scored at or above the
proficient level in reading on the 2015 Nation’s Report Card (NAEP, 2015 reading). Hernandez (2011) found that one in six children who do not read proficiently in the third grade do not graduate on time and as many as 23% of students at the lowest levels of reading drop out or do not finish school on time. My problem of practice is focused on exploring the impact of UDL as a framework to improve educational outcomes for all elementary students. UDL creates classrooms where all have an opportunity to succeed as the three principles of UDL offer students multiple means of engagement, expression, and representation when learning (Meyer et al., 2014).

Acknowledging one’s positionality supports sound and transparent research as it makes the researcher and reader aware of possible misinterpretations. While my positionality can serve as a strength, I need to take caution as it is only one of many possible perspectives and my biases can tamper with research (Roulston & Shelton, 2015). As such, the pages that follow highlight my experiences from a young age to present time and how they relate to my research interest and potential biases from my lived experiences.

**Elementary School Struggles**

As a student in elementary school, I remember the struggles I faced with a one-size-fits-all education. I was a very active and restless boy. This restlessness resulted in years of bad report cards that were filled with Ns (needs improvement) in all academic areas and comments from teachers that I needed to pay attention and follow directions. Spelling tests, which consisted of 20 words, would come home with maybe two correct. My third grade teacher would twist my ear to “remind” me to focus as well as hold me in from recess, which my body needed desperately, to write 300 plus times that I will follow directions. This approach did not work as I continued to struggle and ended up repeating my third grade year. Thankfully, this was with a
different teacher, although instruction continued without the sound strategy of differentiating based on the learner’s needs.

As I struggled to do well, help came in two fronts. My parents never gave up on me. They pushed me to keep trying and instilled a work ethic that persistence and hard work will help me do better in school. This work ethic was not just expressed in words; it was also modeled by both of my parents who each worked two jobs to provide for our family. They did not go to college, and they were determined that I would, so their relentless push and confidence that I could do it eventually paid off. The help from home was also supported by my fifth grade teacher who took me under her wing and taught to my strengths and areas of growth. Most importantly, she showed me compassion, something which I had never felt from teachers earlier in my schooling.

**Ten Years of Teaching**

After graduating from college, I went into the corporate world for a few years as a recruiter. Work consisted of sitting at a desk and calling hundreds of people a week to discuss job opportunities. I found no joy in my work. I eventually left the corporate world and enrolled in a teacher certification program as I saw that my older brother enjoyed teaching. The career change was well worth it as I found my passion and enjoyed ten years of teaching second and third graders.

During those ten years I wanted all my students to succeed. I worked hard to ensure my students felt connected to me and were given the tools they needed to do well in my classroom as I did not want them to struggle as I did. During my tenure, I saw many wonderful teachers help their students reach grade-level benchmarks and beyond. However, there were some teachers that created classroom environments where not all students felt welcomed. Their one-size-fits-
all instructional approach left some students in the margins. Who were these students? Sometimes they were students like me who were a bit restless. Other times they were students with a documented disability. These students often failed to reach grade level benchmarks, experienced a widening of the achievement gap, and felt disconnected from the teacher and the class.

**Six Years as a School Administrator**

After ten years of successfully teaching in the classroom, I moved into my current administrative role as I wanted to have a larger impact. Teaching 20-22 students a year was a great experience, but as a school administrator I knew I could help hundreds of students a year. This could be in the form of helping a student deal with a bully, connecting a student with her guidance counselor, or through my responsibility of being an instructional leader supporting teachers in their growth.

As an administrator, I have seen amazing teachers. These teachers work wonders with all their students. Students grow, feel connected to the class and teacher, and are given instruction that is tailored to their needs. However, similarly to my experiences from teaching, I have heard examples of teachers that did more harm than good. My colleagues from across the state would share that sometimes there were teachers who said and did things to students that led the students to believe the teacher did not like them. Some of these same teachers showed no empathy for students who struggled and instead drew negative attention to behaviors. As such, other students followed the teacher’s example and ostracized these students.

**Possible Bias Manifestation**

Positionality can affect one’s understandings and assumptions (Banks, 2006). My experiences as a student in a public school system and background as an educator for the past 16
years have colored my thinking about schools and teachers. I need to be aware of my biases as I inherently go into situations questioning whether teachers are doing right by their students. This results from my painful experiences as a student. However, this same bias is the driving force behind my goal to help all elementary students succeed. As I know how hard it can be to succeed, I want to ensure all teachers are doing what is needed to help all their students.

All individuals, no matter gender or race, have experienced some form of bias. Bias can come in many forms (gender, race, sexual orientation, etc.) and be both implicit or explicit. In addition, all individuals, knowingly or unknowingly, have committed some form of bias. Again, this bias could be either implicit or explicit. The bias that comes from a place of maliciousness should not ever be condoned. Bias because of not knowing one’s positionality or being aware of multiple perspectives can be just as harmful even when intentions may be noble. As such, I need to not only carefully consider my life experiences but also how my identity as a white male impacts those in my context. In addition, I need to understand the advantages and disadvantages I have as a white male. In regard to this study, my identity as a male, who was often punished by female teachers, is something that both the reader and researcher needs to be aware of. For the reader, it offers a lens through which to interpret my work. As a researcher, I need to compartmentalize my experience and not let it impact my participants or interpretations, but rather have it serve as my motivation to help all students succeed.

While my personal bias motivates me to engage in research to improve educational practice, it also runs the risk of doing harm. As such, I will need to continually reflect on my conversations, actions, and decisions while engaging in research as my personal bias can potentially lead me to rush to judgment and possibly harm the participants in my study or misinterpret results (Machi & McEvoy, 2016).
Research Question

How do elementary teachers and administrators who have gone through a Universal Design for Learning (UDL) implementation make sense of their experience?

Theory

The theoretical framework for this study served to shape the various sections (Creswell, 1994; Lincoln & Guba, 1985; Merriam, 1998; Ravitch & Riggan, 2016). Additionally, theoretical frameworks can be used from other research or created by the researcher for their study (Ravitch & Riggan, 2016). However, before beginning my study I needed a theory to, as Ravitch and Riggan (2016) explain, shape my work. As such, labeling theory was applied to my study of UDL as shown below.

Labeling Theory

While my study context is education, the field of sociology and its contributions to labeling theory may illuminate issues surrounding student achievement, or the lack thereof. In the 1960s, Howard Saul Becker’s book *Outsiders* is credited with not only the development of labeling theory but also the increase in popularity it enjoyed during this same time period (Skaggs, 2018). Labeling theory’s roots are in the field of criminology and based on symbolic interactionism which comes from ideas from notable scholars like John Dewey (Skaggs, 2018). In the 1960s, Skaggs (2018) explained, criminologists were concerned with: “What makes some acts and some people deviant or criminal?” Labeling theorists were those that were trying to reposition the lens to look at how those in power respond to behavior in society negatively as a way of understanding criminology (Skaggs, 2018). Labeling theory and the scholars in the 1960s stand on the shoulders of Frank Tannenbaum who, in the early 20th century, coined the term/idea of tagging (Frank, 1938). Tagging refers to assigning a negative label to individuals
which often was a factor that influenced additional delinquent activities (Frank, 1938). Tannenbaum (1938) posited that the label/tag may result in the person assuming it as part of their identity and attention given to the label increases the likelihood the person will self-identify with the label.

Another seminal author, Herbert Blumer, contributed to labeling theory in 1969, and suggested those in powerful positions enable crime by labeling certain acts as inappropriate (Skaggs, 2018). In fact, the label creates conditions by which society treats individuals according to the label assigned, which leads to the individual not only accepting the label, but also internalize the negative description as well (Skaggs, 2018). Other seminal authors that contributed to the ideas of labeling theory in the 1960s were Albert Memmi, Erving Goffman, and David Matza (Goffman, 1963; Matza, 1982; Memmi, 1965). Memmi, (1965) in *The Colonizer and the Colonized*, wrote the following in regard to the impact of the label assigned to an individual: “The longer the oppression lasts, the more profoundly it affects him (the oppressed). It ends by becoming so familiar to him that he believes it is part of his own constitution, that he accepts it and could not imagine his recovery from it. This acceptance is the crowning point of oppression.” Similarly, Matza (1982) explained in his 1969 book *On Becoming Deviant* that the state, in their efforts to prevent a behavior by prescribing it deviant, does, in fact, prevent many from engaging in maladaptive behavior; however, those that engage in deviant behavior become labeled and it “hastens” the actualizing of assuming the label’s identity. In *Stigma: Notes on the Management of Spoiled Identity*, Goffman (1963) explained the difficulty those with a label have when in the company of the “normals”; those in the non-stigmatized group may say the stigmatized are no different from them, thus “a phantom
acceptance is allowed to provide the base for a phantom normalcy”. Basically, the labeled pretend all is normal when, in fact, they know it is not.

While labeling theory grew in popularity in the 1960s, contemporary scholars have added to its ideas. In a switch from criminology, labeling theory was used to understand the effects of labeling on mental health patients. In a series of studies, Link et al. (1989) found a large negative effect associated with labels as patients often withdraw from society and feel a constant rejection from those not labeled, which can alter one’s identity.

No theory is without its critics. Labeling theory is no exception. Take, for instance, labeling theory’s stance on mental health patients and the belief that its expression is linked to societal influences. Gove (1975) argued against this theory with the belief that there was no influence from society on mental health patients, rather, the behavior of the mental health patients form society’s perception. Additionally, labeling someone a mental health patient has been argued to have benefits. For example, it may lead one to receive treatment (Skaggs, 2018). Labeling theory brought about policy changes such as the closing of “mental” institutions and the way mental health patients were cared for as well as changes to juvenile diversion programs (Skaggs, 2018). However, labeling theory was harshly criticized in the 1970s by theorists who believed in deviance and saw a weakness with labeling theory’s avoidance of deviance, and thought secondary deviance, labeling theory’s explanation that the behavior is a result of labeling and society’s influence, has no utility for sociologists (Skaggs, 2018). Another counterargument for labeling theory is that the literature surrounding secondary deviance has not demonstrated backing for or against labeling theory as it ignores the process, assumes it is correct (without empirical evidence), and only focuses on future deviance (Skaggs, 2018).
In education, an opposite effect has been found when one is labeled negatively. For example, a study in London found when black girls were labeled as low-achievers, they did not have lower achievement as labeling theory would predict, rather they worked hard to prove their teachers wrong (Haralambos & Holborn, 2013). However, even given the criticism and lack of empirical evidence, it is hard to imagine labeling does not have an influence on a person’s self-respect or the treatment by others towards the one with the label. Therefore, labeling theory was a viable option for my project.

As the issue I am interested in involves UDL, I searched Education Resources Information Center (ERIC) and found zero results for the search terms “Universal Design for Learning” and “Labeling Theory.” As such, I switched search terms to “Labeling Theory” and “Education” and found 23 sources to examine. So, while there has been no direct use of labeling theory with UDL, it has been applied in education. For example, Rosenthal and Jacobson (1968) conducted an experiment where teachers were told which children (randomly selected) had, based on an intelligence test, the potential to have the most growth in the coming year. Results showed that the children for whom the teachers had higher expectations for growth scored significantly higher on the same test a year later (Rosenthal & Jacobson, 1968). Overall, the researchers found that teachers’ expectations (self-fulfilling prophecy/Pygmalion Effect) have a large effect on student achievement (Rosenthal & Jacobson, 1968). Thus, the label influenced how teachers perceived their students as those described with more potential were seen as well-adjusted while students not labeled as showing potential were described by teachers as demonstrating undesirable behavior (Rosenthal & Jacobson, 1968). The Pygmalion Effect has been seen in other education studies as well (Boser, Wilhelm, & Hanna, 2014; Wang & Lin,
2014). However, other studies have found that higher teacher expectations do not necessarily lead to higher student achievement (Chang, 2011).

The Pygmalion Effect relates to positive increases in performance when expectations are higher. The opposite is the Golem Effect, where lower expectations lead to lower performance (Babad, 1977). Both phenomena relate to a self-fulfilling prophecy and that when a label is applied, the person is affected by the inputs (teacher treatment) and behave in accordance with their assigned label. Other studies in education utilized labeling theory and found that parents and teachers had lower expectations for those labeled with a learning disability and these students often had lower expectations for themselves (Shifrer, 2013). While the majority of the literature on labeling theory in education has been focused on the adult as the labeler, there is evidence that peers similarly label and the self-fulfilling prophecy plays out here as well (Thomas, 1997).

How can labeling theory offer new insights into my problem of practice of not all students achieving? As UDL is designed to address a wide range of needs and strengths and there is no typical learner, it creates a context where accommodations are not only utilized for those with section 504 plans or Individualized Education Plans (IEPs), but all learners. As such, there may be less of a negative labeling effect in these environments as supports are provided ubiquitously to all. Therefore, labeling theory can help understand the benefits of a UDL context.

**Theory Tenets**

The two major tenets of labeling theory are primary and secondary deviance. While my study does not need to rely on primary deviance to explore my problem of practice, it is important to understand the tenet as it relates to secondary deviance, which will be used in my
work. Primary deviance relates to behavior that is deviant and committed by an individual prior to a label being assigned. For example, stealing a car, and getting caught, is the primary act of deviance. Labeling the person a thief, according to labeling theory, leads to secondary deviance. Society then treats the individual according to the label, and the person assumes that the identity and future deviant behavior is a result of the negative label (Lemert, 1972). The tenet of secondary deviance is useful in my study as the idea that a label influences how one is treated by society as well as how one views themselves and therefore leads to a self-fulfilling prophecy holds merit for the context of the classroom where teachers and peers hold views of others based on labels.

For my qualitative study my research question is the following: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? However, after exploring labeling theory, I realized what I planned to seek through this overarching question was very different than my original intent. I have shifted my thinking from focusing solely on implementation to the impact of an implementation on students for two reasons. First, there is no shortage of literature on managing change (Google Scholar produced about 34,000 results since 2000 with “Managing Change” as a search term) so another study focused on that does not add much value as there is not a need in the literature to fill a gap. Second, labeling theory has opened up new horizons to explore, when UDL is implemented, if there is less of a negative labeling effect on students. For example, is there a labeling effect occurring in our classrooms? Does UDL prevent a Golem Effect and promote the Pygmalion Effect? Where is harm being done? Labeling theory has given me a new lens through which to look at student achievement and to realize that the issue is more complicated than I understood prior to researching labeling theory.
Finally, the exploration of labeling theory has given me new pathways and inspiration for my problem of practice. While my knowledge has grown, so have my questions. However, this is not a problem but rather an opening to new possibilities for improving student achievement and the goal of educational equity. To understand UDL and its relationship with labeling theory, data was collected in a variety of ways. Individual interviews with teachers and administrators provided information about their perceptions and experiences as either the labeled or labeler. Also, are some students treated differently because of the label or lack thereof? As far as context, researching in a district that has fully implemented UDL helped to create a narrative of how UDL and labeling theory played out.

Method

Interpretive phenomenological analysis (IPA) was used as the method to conduct this qualitative study. In IPA studies, the researcher is aiming to understand how participants make sense of their experiences and contexts (Larkin, Eatough, & Osborn, 2011). IPA lends itself to an inductive approach where the data from participants build up to and create themes to be reported out on. The research site was an elementary school where UDL has been implemented for over four years. Both administrators and teachers were interviewed as part of the study. The sample size was relatively small at five total participants. In addition to interviews, analytic memos and contextual factors were considered to help understand how participants made sense of their experiences and contexts (Larkin et al., 2011).

Using a qualitative methodology with an interpretivism paradigm allowed me to interview teachers and administrators to answer the following question: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? A qualitative method permitted me to explore my topic in a more natural setting as I
did not have to control for variables as I would with a quantitative method. As such, my findings can be generalized to other settings unlike quantitative studies where results from controlling variables tend to only be replicated when similar conditions exist. The interpretivism paradigm permitted for semi-structured interview questions which helped to get at the lived experiences of participants. Additionally, the method and theoretical framework allowed me to see if there was a labeling effect in the classroom. For example, the theory speaks to how the label determines treatment and self-perception (Skaggs, 2018). So, examining the UDL implementation and listening to the stories of both teachers and administrators provided information as to what type of labeling effect was experienced.

**Audience/Stakeholders**

Secretary Arne Duncan (2009) expressed that he believes “that education is the civil rights issue of our generation. And if you care about promoting opportunity and reducing inequality, the classroom is the place to start. Great teaching is about so much more than education; it is a daily fight for social justice”. While Secretary Duncan made that statement in 2009, social justice has been an issue since the term was first used in the 1840s (Burke, 2010). Given all the ‘isms in our society, social justice has not been achieved, which is why Adams and Bell (2016) view social justice as both a goal and process. For the purposes of this research, I define social justice as a leveling of the playing field so all have the same rights, opportunities, access, and freedoms no matter one’s gender, race, culture, background, age, sexual orientation, religion, ability/disability, and politics.

Access to a quality education is a right for all young people in the United States. However, as evidenced by test scores and graduation rates not all students are succeeding (NAEP, 2015 Public High School Graduation Rates; NAEP, 2015 reading; NAEP, 2015...
mathematics). As such, an examination of educational equity and social justice needs to take place to prevent further marginalization. UDL may be one way to improve outcomes for students while simultaneously making progress toward equity and social justice.

Improving the experience and outcome for all elementary students through the use of UDL is by no means an easy road to traverse. Along the way will be those that readily join the cause and those that prevent the good work from taking root. Paradoxically, teachers play both of those roles. Another major hurdle is educational policy and funding.

When teachers refer to a student in need of a behavior plan as “the sticker book (reward system) kids” and argue that “not all kids will be able to learn how to read” one can see the implicit bias against students with disabilities, implying that they do not truly belong. This is played out in the very structures schools create where students with disabilities are either pulled out for services or receive their programs in a separate setting, away from their non-disabled peers. UDL serves to remove barriers to the general education classroom, so all can receive their education and succeed in the same setting. However, studies showed that teachers often lacked the time to plan for UDL or the will to collaborate, and even purposefully sabotaged efforts that lead to school improvement efforts (Abadiano & Turner, 2004; Katz, 2015; Kortering, McClannon, & Braziel, 2008; Sales, Moliner, & Francisco Amat, 2017; Taylor, Goeke, Klein, Onore, & Geist, 2011). From a school/educational perspective the research revealed these will be major barriers. However, there is a counter to this stance in the form of research that demonstrated little time was needed for UDL training to have success and teachers lead the way and promoted collaboration to engage in UDL practices and ultimately contributed to school improvement efforts (Ali, 2014; Davies, Schelly, & Spooner, 2013; Katz, 2015; Marino, 2009). This will not be the only fight. In fact, the key is examining the practices of educational funding
to win the war on improving not only educational opportunities for students with disabilities, but all students as shown below by eliminating inequitable funding, which contributes to institutionalized oppression.

In the state of Connecticut, there is a large achievement gap between the affluent suburbs and urban school districts. When looking through a social capital lens, one can see the resources that are bountiful in some communities while absent in others. The money for school funding in Connecticut is not equally distributed among the state or even a region. Instead, each town or city collects taxes from its grand list of businesses and homes. From there, the local Board of Education creates a budget, which either the board of finance or town/city approves. The issue with the system is that it creates inequities as wealthier areas have more resources thus those students have a better network of resources to access than those in less affluent communities. For example, the per pupil expenditure in the wealthy town of Greenwich was $13,533 compared to the less affluent city of Bridgeport where pure pupil expenditures were $7,947 (Hartford Courant, 2013).

The differences in resources plays out in student outcomes as these communities that lack funding/resources often have higher rates of teacher turnover, lower scores on standardized assessments, and lower percentages of students graduating and attending college. Access to a quality education, as it stands today, is a factor of property not human rights as those who live in wealthier areas have access to better schools and teachers (Ladson-Billings & Tate, 1995). This is a form of institutionalized oppression, and to combat this trend, research needs to continue to examine these practices and how it negatively impacts students, lobbying should commence to change funding practices so all have the same access to resources, and in the interim, there
should be outreach efforts to donors to secure funding to help supplement these schools/districts in order to implement UDL and other sound educational practices.

Access to a quality education is a right for all young people in the United States. Not meeting this obligation has serious implications for these students. Unemployment rates for those without a diploma is almost double the rate when compared with those who have some college or an associate’s degree (Bureau of Labor Statistics, 2017). It is necessary to understand the best practices and potential barriers when implementing UDL in elementary schools. Being prepared and implementing UDL with fidelity will give educators a fighting chance to help all students succeed not only in public schools, but also when they leave our classrooms.

While there will be barriers, the supporters can be mobilized to carry the work forward. Some of this work requires further research into teaching students with disabilities in inclusive environments and how to effectively implement UDL, the impact of race, gender, and class for students with disabilities, and having practitioners in the field work to ensure connectedness between teachers and all of their students. The task is daunting, but well worth the effort if we believe access to a quality education is a right for all young people in the United States.

While there are many contextual factors that go into student achievement, it is hard to pretend that there is no impact on both teaching and learning when one applies a label. To me it is prejudicial, creates an oppressor/oppressed relationship, and pushes schools away from educational equity (Freire, 2000). Is educational labeling another form of discrimination? Could labeling be added as another form of institutional oppression? A label, say ADHD, allows one to access services through insurance, but at what cost? Does this label unfairly determine teacher and peer treatment/expectations toward the student (Skaggs, 2018)? And, as labeling theory
posits, does the student assume the label as part of the very fabric that makes up their identity (Tannenbaum, 1938)? It is my hope that implications from my work not only give pause to researchers but also practitioners alike to draw attention to a much needed area of focus on how we engage with students.

While labeling theory was a good choice for my study there were some limitations. As mentioned earlier, there are many factors that go into achievement, not just a label and a teacher’s expectations of a student. As such, it may be hard to argue the impact of a label. Also, studies have shown contradictory evidence of labeling theory. For example, low expectations could motivate one to prove the teacher wrong.

**Conclusion/Forward**

Not all students in America’s public schools are succeeding. While there are many variables that impact achievement, UDL has been found to support the success of all learners (Al-Azawei et al., 2016; Meyer et al., 2014). As such, the Every Student Succeeds Act (ESSA) of 2015 expressed that schools should utilize the principles of UDL (CAST, 2016). To ensure UDL successfully takes root in schools throughout the United States, it is important to understand best practices for implementation. Using a qualitative approach, this study explored the following: How do elementary teachers and administrators who have gone through a Universal Design for Learning (UDL) implementation make sense of their experience? Labeling Theory served as the framework and IPA was employed to discuss findings from the five semi structured interviews. The literature review in the next chapter offers the reader a detailed look at UDL’s framework and its use in schools.
CHAPTER 2 – LITERATURE REVIEW

UDL is not a new idea in education. It has been used, researched, and written about since the 1990s (CAST, 2015). Yet, some educators are unaware of its benefits to help all students succeed (Al-Azawei et al., 2016; McGhie-Richmond & Sung, 2013). This study looked at UDL in the context of elementary schools as a possible framework to improve educational outcomes for all students. To understand the impact of UDL, labeling theory was utilized as the theoretical framework around which this study was built to answer the following research question: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? The following literature review examines empirical studies and the major authorities that have researched UDL in a variety of contexts and formats.

The U.S. Department of Education’s overview and mission statement, as described on its website, reads as follows: ED’s mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. Their website also highlights how President Obama signed the Every Student Succeeds Act (ESSA) into law on December 10, 2015. ESSA aims to create equal opportunity for all students (Sharp, 2016). If you move from the macro to the micro level of individual schools and districts, one will find mission/vision statements such as:

All graduates will be innovators, collaborators and creative and critical thinkers who are high achieving, socially responsible, civic-minded and have internalized the virtues of compassion and empathy.

The theme in the language of these mission/vision statements is success for all students in America’s public schools. How are schools doing in achieving these ends? The National Assessment of Educational Progress (NAEP) is charged with assessing what America’s students
know and are able to do. According to recent data, schools are not living up to the aforementioned mission/vision statements as only 40% of fourth graders performed at or above the proficient level in mathematics and 36% of fourth graders performed at or above the proficient level in reading on the 2015 Nation’s Report Card (NAEP, 2015 mathematics; NAEP, 2015 reading). While this is a snapshot of one cohort, and these students have years before graduating, one can argue that schools and districts have time to help these students achieve and meet the goal of the vision/mission statements. However, there is data that shows of the children not reading proficiently in the third grade, one in six do not graduate on time from high school (Hernandez, 2011). The data in 2015 for high school seniors showed the United States is only graduating 83.2% of its public high school students (NAEP, 2015 Public High School Graduation Rates). If you deconstruct that number among various subgroups (race and disability) you will find a range from a high of 90.2% (Asian/Pacific Islander) to a low of 64.6% (students with disabilities). The reading data and high school graduation rates demonstrate that a large number of students are not succeeding. Students with disabilities, according to these data, are graduating at the lowest rates when compared to other groups. How can schools address the issue of not all students succeeding? As Hernandez (2011) showed, students not reading proficiently by the third grade are in danger of not graduating. In Connecticut, recent data showed that only 55.4% of students made benchmark for reading (OLR, 2016). Of children not reading proficiently in the third grade, one in six do not graduate on time from high school and for children at the lowest levels of reading, 23% drop out of school or fail to finish on time (Hernandez, 2011). In Connecticut, each dropout costs the state $500,000 over their lifetime (CCER, 2018). There remains a large achievement gap in Connecticut as an urban area like Bridgeport graduated just 74.5% of students compared to the suburban area of Wilton’s 98%
graduation rate (Zahn, 2018). The most important factor influencing student achievement is effective teachers (ERNW, 2003). Research has shown that students of effective teachers outperform classmates with ineffective teachers by as many as 64 scaled score points and a student with an effective teacher continues to outperform her peers for up to three years while it takes up to three years for a student under an ineffective teacher to reach benchmark (Sailor, 2008). Based upon this data, teachers are having trouble helping all students achieve. ESSA suggests that schools use to the “extent practicable” the principles of UDL and incorporate the principles of UDL within literacy instruction as UDL is beneficial to meeting the needs of all students and is effective pedagogy (CAST, 2006). Therefore, can UDL assist schools in meeting the needs of all students in elementary schools?

The Center for Applied Special Technology (CAST), which is recognized internationally for their work to improve educational opportunities for all, created UDL which has been shown to meet the needs of all learners in schools since its inception in the early 1990s (Al-Azawei et al., 2016; CAST, 1998; Meyer et al., 2014). The UDL framework, when supported by the school principal, promotes positive outcomes for students and teachers in the area of learning, self-efficacy, and sense of community (Katz & Sugden, 2013). Is UDL the right approach to help all students in elementary schools?

UDL shows promise to be used as a framework to improve outcomes for all students and thereby improve schools. However, with initiative overload, how do schools effectively rollout UDL? This literature review looks closely at enacting teacher leadership to work towards school improvement efforts and improving outcomes for all students within the context of UDL. A few questions guided the review of the literature: What structures and systems do schools need to employ to promote teacher leadership? What might prevent teacher leadership from taking root?
What does teacher training look like while gaining certification and teaching in the field? What are the experiences of students and teachers with UDL? What considerations are there for training and UDL implementation? What are the outcomes for students in schools/contexts that implement UDL with fidelity? To answer these guiding questions, the literature review unfolds by first defining UDL, then various considerations to support UDL in schools are explored, which will be followed by an explanation of a major barrier for UDL to take root, supports and hurdles for improving teacher leadership capacity, and finally, a summary of findings and suggestions for future study to meet the needs of all students in elementary schools and enact teacher leadership. Google Scholar, ERIC, and Education Research Complete databases were utilized to find both quantitative and qualitative empirical studies. The following search terms were used to find research: disabilities, elementary, school improvement, school leadership, teacher leadership, Universal Design for Learning, and UDL.

**Defining Universal Design for Learning**

While UDL has been around since the 1990s, the review of the literature shows that not all preservice teacher programs incorporate UDL training into teacher educator classes (Meyer et al., 2014; Scott, Thoma, Puglia, Temple, & D’Aguilar, 2017). As such, the following section goes into the origins of UDL and explains its framework.

**Universal Design for Learning**

UDL’s origins can be traced back to the 1990s and the work being done at the Center for Applied Special Technology (CAST) by Anne Meyer, David Rose, and some of their colleagues (Meyer et al., 2014). Universal Design (UD) is not a term that originated in the field of education, but rather in the field of architecture (Black, Weinberg, & Brodwin, 2015). UD principles were used in designing buildings from the beginning with the goal of providing access
to all. For example, imagine if your only means of moving around was via a wheelchair and as you are heading to a building you find there are only stairs leading up to the entrances. As you cannot traverse the stairs with your wheelchair, you are unable to access the building. Therefore, the building is not universally designed to provide access for all (Meyer et al., 2014). However, if there was a ramp, not only could you have access, but so could a father pushing a stroller, an elderly person uncomfortable negotiating steps, etc. The framework and three principles of UDL work by providing access to the curriculum and classroom environment for all learners by removing barriers. Like UD, UDL is done intentionally before students arrive. CAST (2015) defines UDL as “A set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone—not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs.”

UDL was part of the National Education Technology Plan of 2010 and 2016 and the Education Technology Developer’s Guide (Moore, Smith, Hollingshead, & Wojcik, 2018). Both the Higher Education Opportunity Act (HEOA) of 2008 and the Every Student Succeeds Act (ESSA) of 2015 defined UDL as a scientifically valid framework (Lowrey, Hollingshead, Howery, & Bishop, 2017). The HEOA of 2008 specifically defined UDL as: A scientifically valid framework for guiding educational practice that (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities (HEOA, 2008).
ESSA specifically named UDL in four key areas: SEC. 1005. State Plans; SEC. 1204. Innovative Assessment and Accountability; SEC. 2221 (b)(1) Comprehensive Literacy Instruction; SEC. 4104. State Use of Funds (CAST, 2016). At its heart, ESSA aims to create equal opportunity for all students. This is not dissimilar to the goals of utilizing UDL in classrooms. The current provisions for UDL in ESSA suggest that schools use to the “extent practicable” the principles of UDL and incorporate the principles of UDL within literacy instruction (CAST, 2016). Nationally, UDL’s presence in school districts is growing. In 2010, Maryland enacted the country’s first state UDL legislation with their Universal Design for Learning Act (HB 59/SB 467) (MDAC, 2010). As such, Maryland was the first state to adopt UDL to assist in its curriculum design (MDAC, 2010). More recently, New Hampshire signed on for a three-year program, which would see UDL implemented in 24 districts (NHED, 2018).

The UDL framework has three principles, which are based on three major neural networks that are activated during learning (CAST, 2015). The recognition network focuses on the “what” of learning and is linked to the principle of providing multiple means of representation. The strategic network focuses on the “how” of learning and helps to inform the principle of providing multiple means of action and expression. The third principle offers multiple means of engagement, focused on the “why” of learning, and is based on the affective neural network.

What does UDL look like in practice? Meyer et al. (2014) express that in the classroom, methods, materials, goals, assessments, and classroom environment are designed so all have access without barriers. For example, students with a learning disability could access technology that supports their efforts to understand text or maybe even be provided options to show what they know about a given topic. This could be as simple as students having options to
type, narrate, or write a story to demonstrate they know a story includes a beginning, middle, and end. While the UDL framework benefits students with special needs, it is designed to meet the needs of all learners (Spooner et al., 2007).

Research has found that by utilizing the UDL principles a curriculum would not need extensive changes. UDL provides more ways for students with disabilities to access the curriculum without a heavy investment in time and complicated changes (Jackson, 2005). In fact, UDL can help in creating a more inclusive curriculum (Mavrou & Symeonidou, 2014). UDL is also being recommended for higher education settings, not just Pre-K-12 settings. The authors of a 2014 study suggested their findings demonstrate a need for more accessible texts, and this need is even greater for students who struggle with reading (Tzivinikou, 2014). As such, higher ed faculty should use UDL principles to remove barriers for students (Tzivinikou, 2014).

The Individuals with Disabilities Education Improvement Act (IDEIA) expresses that all students should receive a rigorous education regardless of ability or disability (IDEIA, 2004). UDL shows promise to help all students succeed as studies show improved outcomes for students (Al-Azawei et al., 2016; Coyne, Evans, & Karger, 2017; Coyne et al., 2012; Davies et al., 2013; Kennedy, Thomas, Meyer, Alves, & Lloyd, 2014; King-Sears et al., 2015; Kortering et al., 2008; Lowrey, Hollingshead, & Howery, 2017; Marino et al., 2014; Rappolt-Schlichtmann et al., 2013; Webb & Hoover, 2015).

**Conclusion**

UDL’s three principles of multiple means of expression, representation, and engagement, offer schools and districts a framework to lower, if not eliminate barriers to preventing all students from accessing a rigorous and quality education. The literature shows promise for
UDL. However, UDL is not new as it has been around since the 1990s. In that same period of time, students continue to struggle in public schools. Can UDL help increase the odds of students succeeding?

**Student and Teacher Perspectives**

Should districts and schools consider the perspectives of students and teachers when implementing new curriculum, teaching methodologies, or changes like the implementation of UDL? The review of the literature on UDL show that schools need to attend to both teacher and student perspectives as a way of ensuring students are not marginalized or harmed when implementing UDL.

**Students**

A 2008 study looked at student perceptions of UDL (Kortering et al., 2008). In comparison to regular classes, students strongly favored the UDL interventions in terms of effectiveness, utility, and satisfaction. The open-ended items helped the researchers uncover themes. Overall, the researchers found that student participants perceived higher rates of engagement when compared to non UDL activities (Kortering et al., 2008).

Another study looked at understanding how students perceived changes and/or improvements in instruction after instructors received training in UDL and modified course methodology for their students (Schelly, Davies, & Spooner, 2011). The research found that UDL training can increase instructors’ implementation of UDL principles as student results on the survey questionnaire given prior to the training and after indicated students felt that instructors used a significant amount more UDL strategies post-training as compared to the pre-training survey (Schelly et al., 2011).
A more recent study answered the following question: How do students with and without disabilities feel about being educated in inclusive settings? Shogren et al. (2015) examined this question in their article where they acknowledged the student voices on inclusion. Eleven focus groups were conducted at six sites that were identified by the Schoolwide Inclusive School Reform Center as being model schools for inclusive educational practices. Both students with and without disabilities were part of the case studies and a number of themes emerged that contributed to the success of these schools. First, a culture was built that created an environment where all students belong. Factors that contributed to this included the principals and teachers being involved in creating a culture where principals get to know students and teachers have patience and know their students well. A second theme spoke to inclusion. Both students with and without disabilities expressed their schools as inclusive, yet there were different experiences for students with and without disabilities. For example, students without disabilities saw that students with disabilities required help and this was important to inclusion; however, there was little talk of how students with disabilities contributed to the class. Students with disabilities wanted to be in the classroom and not pulled out for their services. The third theme centered on the various school and classroom practices that supported students. Of these were co-teaching arrangements, individual supports, and UDL. The UDL brought in choice in the areas of representation, engagement, and expression. For example, choice in learning modalities and technology (iPads, etc.). However, because supports and access to certain technologies were not made available to all, some students were seen as needing more help. The authors suggested further research in this area to look at how instructional arrangements effect creating perceptions of students who need extra support. Both students with and without disabilities saw pulling students out of the classroom as a negative as it impacted access to the curriculum and making
friendships. The authors also suggested further research to understand ways to ensure students that get extra help, regardless of a disability or not, are seen as members of the class that contribute just as students not receiving extra help.

Another 2015 study was able to understand student perspectives for students with and without disabilities. The study looked at the impact of utilizing UDL to teach chemistry to students with and without disabilities and consisted of two questions. 1) Are students with and without high-incidence disabilities (HID) taught using a UDL treatment better able to solve one- and two-step mole conversion problems than students taught using comparison instruction (i.e., business as usual)? 2) Do these students maintain performance after a four-week delay (King-Sears et al., 2015)? In four co-taught high school classes, the treatment group was taught with UDL principles, and the comparison group utilized regular instructional methods. Three tests were given to measures the effect: A pre-test, post-test, and delayed post-test that came four weeks later. Researchers found no significant difference between conditions; however, group size was limited and there were fidelity issues with the treatment groups as they experienced technology problems. More research is needed to see if the effect will increase with greater fidelity. While the UDL treatment benefited students with HID, did it slow the pace for students without disabilities? Also, while feedback on UDL was positive from students with and without disabilities, researchers did not find commensurate outcomes for learning.

A more recent study analyzed classroom observations and student interviews in a middle school to understand how students with intellectual and developmental disabilities (IDD) viewed Udio, an online UDL literacy environment (Coyne et al., 2017). Udio provides literacy instruction in a digital format with the goal of increasing engagement and reading comprehension levels of students who have alienated themselves from traditional teaching
methods. Researchers found that all 10 participants were able to use the Udio device independently after one-to-one instruction for about two months. The three themes of age-relevant content, choice, and opportunities for socialization were found in the study to be the variables for student engagement. Udio helped students with IDD on two major fronts. First, it increased reading engagement and second, Udio’s content promoted socializing among students with IDD.

**Teachers**

A qualitative study examined the language that seven general education teachers from the United States and Canada used when talking about UDL, inclusion, and students with intellectual disabilities (ID). The purpose of the study was to understand how teachers explain how the three relate (Lowrey et al., 2017). All seven teachers worked in districts that went through an implementation of UDL for at least a year, had at least one student with moderate to severe ID within their classroom, and were a general education teacher. Of the participants, there were three teachers at the elementary level, two at the middle school, and two at the high school. From the interviews, the researchers were able to hear the teachers’ stories and found stories of belonging for all students; however, some stories spoke of difference where students with disabilities, even though they were in the classroom, were not seen as truly belonging. For example, teachers used terms such as “putting those students in your room” and “her special education teacher’s students.” Could this language be a result of years of separating students or is it the driving force behind keeping students excluded? Lowrey et al. (2017) argued that language like this can create a perception that these students are less-abled. In terms of planning, stories of intentionality were heard, however, some stories showed unintentionality when teachers mistakenly believe UDL does not require intentional planning. Teachers’ stories also
demonstrated both success and struggles with UDL. The researchers found that while there is evidence showing social and academic benefits for students with ID in inclusive environments, more preparation for educators needs to be done so they better understand the philosophy of inclusion, the framework of UDL, and social and academic expectations for students with ID (Lowrey et al., 2017).

Conclusion

Student and teacher perspectives about UDL reveal various positive themes. These themes center on how UDL environments increase engagement, opportunities for socializing, and a sense of belonging. Paradoxically, some studies point to a deficit belief that some students do not “truly” belong in the classroom and are possibly seen as less abled? As such, schools and districts need to address this marginalization.

Considerations for Implementing UDL

Reviewing the literature has revealed various findings when looking at UDL implementations. However, two overarching themes seem to be a common thread in much of the literature. The first to be reviewed below is the teacher. In particular, training for teachers and the collaboration that needs to take place for successful implementation. The second theme is the role of technology.

Teachers

There is a dichotomy of experience between preservice teachers and those in the field. Changes in curriculum, instructional methods, and the introduction of initiatives all impact a teacher’s knowledge base. As such, some preservice teachers and current practicing teachers may or may not have been trained or even know about UDL principles. Are postsecondary schools training preservice teachers in UDL principles? Researchers found that 87% of the 72
postsecondary students featured in a study had no knowledge of UDL, and it seems that UDL is not generally in programs to prepare future administrators or teachers as some courses might include learning about UDL principles (McGhie-Richmond & Sung, 2013; Sailor, 2008; Spooner et al., 2007). A study conducted 10 years after Spooner et al. (2007) found more preservice instruction in UDL principles. In the 2017 quantitative study, researchers surveyed program coordinators at accredited universities to understand how UDL is being utilized as there is not much information regarding the extent to which UDL is used in preservice classes (Scott et al., 2017). Their three research questions focused on the extent to which programs are incorporating a UDL framework, which UDL tools and resources are being used in the programs, and the extent to which the programs use a Universal Design for Transition (UDT) framework. The study found greater than 80% of the 41 special education personnel preparation (SEPP) programs surveyed report their programs emphasize teachers learn about and be skilled in the UDL principles. Conversely, 90.15% of the programs did not link UDL with transitions, which led the authors to believe programs are not preparing teachers to help students attain both their academic and transition goals for students with intellectual disabilities. The researchers also found that programs teach about the principles of UDL but applying them in teaching settings may be limited. When UDL was included as part of pre-service teachers’ coursework, researchers found there was excitement around using the principles in practice (McGhie-Richmond & Sung, 2013). A study was designed based on Spooner’s et al. (2007) earlier research to answer if special education teacher candidates in their training program could increase their understanding of UDL principles and use them in their lesson plan design (Courey, Tappe, Siker, & LePage, 2013). One group of teacher participants in the research were given a one hour training after which the control group came to class where all received a one hour lecture on UDL and how the principles
applied to lesson planning. Each teacher was required to design three lesson plans. The first was a baseline and done before any UDL training. The second was done following the training, and the third was due at the end of the semester. The study found that the teachers improved in their ability to utilize UDL principles in the design of lesson plans (Courey et al., 2013). While they showed they were able to design the plans, researchers do not know if they can implement the plans in authentic classrooms. The researchers also expressed that the teacher candidates needed more time practicing, designing, and implementing the plans.

While not all teachers in teacher preparation programs are trained in UDL, Davies et al. (2013) wanted to fill a gap in the literature by looking at how university instructors are trained on the principles of UDL, how they implement the training, and the effectiveness of the training. To answer their question, student perspectives were juxtaposed in regard to teaching methods. To accomplish their research, an intervention group, consisting of six instructors, was trained in UDL. The control group consisted of three instructors who did not receive the UDL training. The researchers administered a pre- and post-questionnaire to the students in those two groups and received 386 back from the intervention group and 204 from the control group. Student responses were examined to understand perceptions of regular classroom instruction and instruction utilizing UDL principles. Results showed that with the limited training of five hours for the intervention group, implementation can be effective as evidenced by student survey results that showed the instructor’s (intervention group that had training) use of UDL was seen as a positive change over the control group.

Teachers already in the field, who have not been trained as a preservice teacher or as a practicing teacher in the principles of UDL, have been responsive to even small amounts of training. In 2013, research showed five hours of training had positive affects (Davies et al.,
A 2015 study demonstrated a combination of a full-day workshop with three half days of professional development produced positive results as seen in teachers’ responses (Katz, 2015). In Marino’s (2009) study, teachers were trained at an initial one-day group workshop, which was followed a week later with a two-hour individual session with the researcher. The study found with the little amount of training, teachers could use a UDL based technology tool and improve access and outcomes for students at remedial levels of reading. Sokal and Katz (2015) showed positive outcomes in student engagement over the control group with training in UDL occurring over two days of large group learning, small group work over one day for planning, one day in the small group focused on assessment, and then trainer follow-up.

The review of the literature revealed positive results with a relatively short time frame of training (Davies et al., 2013; Katz, 2015; Marino, 2009). Is this enough to sustain a lasting change when implementing UDL? A study looked at a cycle of professional development and coaching in an elementary school over a three-year period (Spelman & Rohlwing, 2013). While some teachers improved their knowledge base over the three years, some did not. Spelman and Rohlwing (2013) recommended that initiatives be implemented slowly, with time taken to build a culture built on trust and then proceed with change. Gibson and Brooks (2012) set out to understand how elementary teachers handled an implementation of a new social studies curriculum. Major findings included: teacher needs should be considered when providing professional development; implementation should include active learning, modeling, collaboration, and teachers should be supported by a learning culture (Gibson & Brooks, 2012). Collaboration was found to be a key to implementing change in not only the Gibson and Brooks (2012) study, but others as well (Katz, 2015). Collaboration as a positive force in schools was also seen in a qualitative study that looked at improving the capacities of teachers in elementary
schools in Pakistan to become teacher leaders (Ali, 2014). It was found that collaboration helped
the teacher participants increase their confidence in pedagogical knowledge and their
understanding to put effort into improving their schools (Ali, 2014). One year later, another
study demonstrated that collaboration was a factor contributing to successful inclusive classroom
environments (Morningstar, Shogren, Lee, & Born, 2015). Is collaboration enough for UDL to
be successful? A 2015 study found that collaboration alone is not enough as once collaborative
groups are created, and teachers engage together in frequent work, create good relationships, and
trust one another, then these groups can work towards school improvement (Fairman &
Mackenzie, 2015). De Neve and Devos (2017) also found trust to be a major variable in creating
effective collaborative teams.

Technology

Basham et al. (2010) found in their empirical research that UDL allows learning to be
accessible to all students when purposeful planning goes into designing lessons and the
classroom environment and the students/teachers use technological tools. There are many
choices/options for educators when using technology. As technology can be an option for the
entire class and utilized at different tiers of need, teachers can use it for small group, whole class,
or more intense instruction where students might be seen one on one (Basham et al., 2010).
Research has shown that student outcomes improve when the learning environment, content,
process, and product is differentiated. Technology is a tool that can help meet these ends
(Altıntaş & Ozdemir, 2015). The UDL principle of multiple means of representation is an
important feature of the framework (Katz, 2015). While there are nontechnical methods of
providing multiple means of representation, technology can aid in providing additional options
for representing text. For example, Huang, Liang, and Chen (2012) found when 166 elementary
students expressed their opinion of using e-books that printed books were less preferred. In addition, teachers were given information on student needs when the technology was utilized (Huang et al., 2012). The information can be used in a variety of formats. It can be used to plan instruction and update parents and students on progress (Huang et al., 2012). A more recent study analyzed 130 e-books, of which 60 were no-cost e-books. The study found there were no statistically significant difference between the cost and no-cost e-books (Parette, Blum, & Luthin, 2015). The authors explained it is unclear whether best practices are considered when these technologies are designed. However, the e-books can help teachers design instruction according to the UDL principles of multiple means of representation and engagement.

Student needs can be met when technology is used in conjunction with teacher instruction on mandated state tests and classroom-based work (Aslan & Reigeluth, 2016). Hall, Cohen, Vue, and Ganley (2015) used a mixed methods approach to understand what student outcomes (online versus offline) would be when using CAST’s Strategic Reader (SR). The SR is a technology based product that works on improving students’ comprehension of text by using the principles of UDL and curriculum-based measures to address the needs of the students. Results from analyzing the data from 307 middle school student participants demonstrated that students with disabilities who utilized the online component demonstrated a significant growth in scores (Hall et al., 2015). However, a 2014 study wanted to see what impact video games and alternative text might have on middle school students with learning disabilities in science (Marino et al., 2014). While qualitative data suggested students with learning disabilities were extremely engaged throughout the UDL science units, quantitative data demonstrated that students with LD did not benefit from the UDL science units as post-test scores showed no
significant differences when students with LD were compared with typical peers. However, the UDL unit that incorporated games did promote collaboration and engagement.

A 2012 study showed different findings when compared to Marino’s (2014) study on the usefulness of technology based on UDL principles (Coyne et al., 2012). The study looked at applying the principles of UDL to literacy instruction for students with significant intellectual disabilities (Coyne et al., 2012). Researchers used technology (UDL e-books) and applied it to literacy instruction in the form of Literacy by Design (LBD). Results were promising as the LBD group made greater gains in the area of reading comprehension than the control group. Researchers found in their classroom observations that LBD classroom instruction moved from skills-based to a more comprehensive approach to teaching reading as compared to the control rooms which remained skills-based. A four-week technology based science curriculum was utilized across four middle schools for 1,153 students in grades sixth to eighth (Marino, 2009). Students were placed into three groups based on their Degrees of Reading Power (DRP) assessment from the prior school year. Groups were based on the following percentiles: ≤25th percentile, scores between the 26th and 50th percentile, and students scoring >50th percentile. During the unit of instruction, students utilized a technology-based astronomy curriculum called Alien Rescue, which contained principles of the UDL framework. Marino (2009) found that while the readers with a low reading ability benefited more than their proficient reading peers from the technology tools for cognitive loads, they did not use these tools as frequently as their more proficient peers. As such, this may indicate that low-ability readers need guidance on how and when to use the technology tools. The study also showed UDL can improve access and learning for students at the lowest levels of reading as students that scored ≤25th percentile on the DRP performed as well as their peers in the 26th-50th reading percentile on the post-test measure.
Another study showed UDL in conjunction with technology to be beneficial (Webb & Hoover, 2015). In the qualitative study, researchers utilized UDL in conjunction with an instructional design process of Analysis, Design, Development, Implementation, and Evaluation (ADDIE) to design an online biology tutorial. To test the system’s effectiveness, students with disabilities engaged with the tutorial. The study found that utilizing ADDIE along with UDL when designing tutorials benefited both students with and without disabilities (Webb & Hoover, 2015).

It is not enough to just use technology. When teachers use technology as part of their instruction, Personalized Learning Object Recommender Systems (PLORS) should be used in the computer-based learner management systems as instruction can be personalized for each learner (Imran, Belghis-Zadeh, Chang, & Graf, 2015). Another consideration when using technology as a tool within the framework of UDL are virtual change agents (VCAs). VCAs can assist with UDL’s principle of providing multiple means of engagement as the VCAs increase student engagement (Kim, 2012). Another important feature is the feedback students receive from the system via answers students provide to the VCA’s questions, which is used to provide tailored instruction based on each student (Kim, 2012). Technology in conjunction with good instruction help to create a successful personalized learning environment (Headden, 2013). Content Acquisition Podcasts (CAPs) are an instructional module that utilizes technology and UDL’s principles of multiple means of representation and engagement and cognitive theory of multimedia learning along with sound instructional design principles. Results are promising as 32 students with disabilities and 109 students without disabilities, who were taught using CAPs, exhibited growth on curriculum-based measures (CBMs) and scores were much higher on end-of-unit tests when using the CAP as compared to normal instructional methods. In fact, students
with disabilities under the CAP instructional model closed gaps on students without disabilities who were taught with normal instructional methods (Kennedy et al., 2014).

What if technology is not an option due to funding or access issues? Some research has found lessons can still be designed following the UDL principles for all students absent expensive or unavailable technologies (Spooner et al., 2007). Yet, in another 2007 study, McGuire-Schwartz and Arndt (2007) looked at UDL going from theory to practice as preservice teachers took college classroom knowledge of UDL and applied it in their practicum settings. The qualitative study showed that lack of sound and accessible technology in their contexts created a barrier to fully implementing UDL. Technology is being woven into many aspects of instruction. For example, science notebooks in elementary schools are not a recent fad as they have been utilized for years and were the focus of a study that looked at applying the principles of UDL to science notebooks (Rappolt-Schlichtmann et al., 2013). Researchers created a web-based science notebook based on UDL principles. They were interested in understanding if it helped students overcome some of the barriers with paper and pencil notebooks, the relationship between student utilization of technological supports and teacher characteristics and how these were related to learning that demonstrated productive inquiry, and teacher and student perspectives of the technology on their learning. However, like other studies, technological problems, which are not uncommon as about 80% of American public schools lack adequate internet access, created barriers to implementing the Universally Designed Science Notebook (Rappolt-Schlichtmann et al., 2013).

Does all technology provide an educational benefit? How does one know if technology is designed with UDL principles in mind? Technology is not only in classrooms but is also replacing the brick and mortar schools with completely online learning environments or blended
learning environments. Technology is often used in schools as a way to help personalize learning and remove barriers for all students and, most notably, for students with disabilities. Some of these are blended learning options for K-12 schools and some are completely online. The authors of a recent study examined 478 Khan Academy lessons with their UDL Scan Tool to understand alignment with the UDL framework (Smith & Harvey, 2014). They found very little alignment with the UDL framework. As such, educators need to effectively examine technology to ensure it will address the learning variability exhibited by students (Smith & Harvey, 2014). The UDL Scan Tool can be used to help educators make sound decisions for their students. Another study utilized the UDL Scan tool to explore alignment between UDL and online learning content (Basham, Smith, & Satter, 2016). However, the authors feel these technological products need to be evaluated for accessibility. The UDL scan tool can be used with validity to assess the alignment of technology with UDL. The next step would be to measure how the technological product provides instruction.

**Conclusion**

The two collection themes of teachers and technology in a UDL implementation reveal there are disparities in preservice programs in regard to training on UDL principles; training teachers is necessary but not enough as collaboration is a necessary variable, and it is not clear if technology is a benefit as studies show contradictory results.

**A Major Barrier to Implementing UDL**

While time and resources were seen in research findings to be potential barriers to UDL or other initiative endeavors, teachers as a barrier were a major theme throughout the review of the literature. Time and resources are more fixed. You either have them, or you do not.
Teachers and their dispositions, commitments, and willingness to implement a new initiative are more variable and potentially a major barrier to the success of UDL.

Teachers

While the review of the literature showed positive results with UDL training can be seen with little training and collaborative relationships help contribute to school improvement efforts, what might be a barrier to implementation (Ali, 2014; Davies et al., 2013; De Neve & Devos, 2017; Fairman & Mackenzie, 2015; Katz, 2015; Marino, 2009; Morningstar, Shogren, Lee, & Born, 2015)? Fovet, Mole, Jarrett and Syncox’s (2014) qualitative study looked at college instructors’ responses to UDL over a two-year period after UDL professional learning. They found a number of variables impact the implementation of UDL and suggest that identifying the “facilitators” or “stressors” facilitates a speedy implementation of UDL by instructors. Facilitators include an analysis of current skills within the faculty, connections between instructor and students focused on rich discourse, accessible and effective tools, a sense of ownership of the UDL framework, and subject specific tools (Fovet et al., 2014). On the other hand, there are a number of stressors such as a lack of time and monetary resources, lack of leadership involvement or modeling of the UDL practices, myths, fears, misconceptions about UDL, lack of confidence in one’s ability to implement, and a concern to be responsible for all learners when, in the past, it was someone else’s responsibility (Fovet et al., 2014). A study looked at the outcome of a UDL audit at a large campus in North America with over 37,000 students (Beck, Diaz del Castillo, Fovet, Mole, & Noga, 2014). The disability service staff were worried about a disparity between messages of promoting UDL and their internal practices. The authors found that some of the aspects of the service provider’s procedures and environment created barriers for students. The audit can sometimes be seen as threatening as all on the team
need to self-assess and some see a UDL implementation as eliminating their job (Beck et al., 2014).

Learning about UDL requires professional development where teachers increase their knowledgebase. A 2013 study found factors that contributed to the failure of improving teacher knowledge. Barriers included school leadership, teacher turnover, passivity, and resistance to change (Spelman & Rohlwing, 2013). Gibson and Brooks (2012) found when researching the implementation of a new curriculum that schools should be considerate of resistance to change by the teachers. As teachers can be resistant to change, districts need to take this into account as constant change was found in the study to be a major reason impacting the teachers’ willingness to engage in a change (Gibson & Brooks, 2012). Researchers found that teacher willingness was a barrier to learning something new like UDL, and, even when teachers were willing, they experienced some disapproval from their peers (Kortering et al., 2008). Other studies show some teachers prefer working alone as they have a silo mindset (Sales et al., 2017). Spillane (2006) found some teachers collaborate not to grow, but to maintain the status quo. Other research demonstrates teachers are negative forces in their schools as they lack commitment and periodically do not get along well with their colleagues. Researchers in a study discovered teachers can purposefully block collaboration among colleagues from occurring (Taylor et al., 2011). This negative teacher attitude toward collaboration was found as a key problem in research (Abadiano & Turner, 2004). As some teachers look to collaborate and innovate while others opt to work individually, a schism can form when there is a dichotomy of teacher philosophies (Sales et al., 2017).

Conclusion
For UDL to be successfully implemented, schools and districts need teachers to be willing participants to sustain momentum. However, studies show that some prefer to work in isolation, which prevents collaboration. Some teachers even deliberately sabotage UDL efforts as teachers feel their colleagues’ disapproval.

**Promoting Teacher Leadership**

Teacher leadership can come in various forms. One such form is the formal leader where the teacher is given a specific title and charged with carrying out a form of leadership such as a science department head. Informal teacher leaders are those that lead without the official title yet contribute, like formal leaders, to lead change and work toward school improvement efforts. How can teacher leadership be fostered to assist the implementation of UDL? The literature revealed various findings and areas to consider. The principal and collaboration are major supports to enact teacher leadership as shown in the following pages.

**The Principal as Promoter**

While the principal has traditionally been the lead teacher and sole decision maker, some school structures and leadership have changed over the years from leadership being enacted as an individual activity to a shared effort; however, the principal still plays an important role in promoting teacher leadership (Raelin, 2011). Muijs and Harris (2006) showed in their qualitative case studies of United Kingdom (UK) schools how important the principal is to supporting teacher leadership. In addition to supervising and evaluating teachers, principals need to attend to creating systems that recognize and reward teachers, design unique professional learning opportunities, promote a positive school culture, and create structures that support teachers. For example, creating time that allows for teachers to collaborate. The study found
that when the principal supported the aforementioned efforts, teacher leaders contributed to school improvement efforts (Muijs & Harris, 2006).

Teachers sometime transition into a different role. For example, a teacher could be asked to change grade levels from year to year, move to a different school, or go from teacher to coach or coach to teacher. Munroe and Driskill (2014) wanted to examine these stressful situations to learn if, before the transition back, teachers were provided with information about the possible stressors and complexities would this help the transition and cut down on the number of teachers leaving the classroom or district. The authors found that while participants still had the same level of stress from transferring into a new position, they were able to cope and thereby improve their ability to stay with the job and school. The authors further suggested that guiding preemptively with awareness, intention, and support can help make for a smooth transition. As such, principals can support all teachers, including teacher leaders, when they move into a new role such as teaching a different grade level or move into a leadership position.

Distributing the leadership across the teachers can work toward improving the school and the capacity of teacher leadership (Gautam, Alford, & Khanal, 2015; Lambert, 2013; Sales et al., 2017; Spillane, 2006). However, the formal leadership (principal) needs to be involved in creating the structures for collaboration for true teacher leadership to actualize (Sales et al., 2017). The principal, as the key to promoting teacher leadership, was also seen in Schrum and Levin’s (2013) research on exemplary schools and what they do prepare teacher leaders. Similar to Sales et al. (2017), the researchers found that while leadership is not an individual activity, the principal has considerable influence as the promoter and organizer for creating the structures in which teachers lead both formally and informally to improve their schools (Raelin, 2011). Namely, principals need to encourage collaboration, share leadership, and involve teachers in
planning and goal setting to prepare teacher leaders (Lai & Cheung, 2015; Schrum & Levin, 2013). Similar findings were also seen in a qualitative case study that looked at what contributed to building formal and informal teacher leaders in a school in Iceland where over the course of ten years, student outcomes improved (Sigurðardóttir & Sigþórsson, 2016). The authors discovered that the principal created conditions in which teachers were involved in the leadership. The principal, along with the teachers, created a shared vision, set up structures to allow for peer coaching, and modeled reflective practices. Principals can also create structures to support teacher leadership in a formal way. For example, in a qualitative study of a formal leadership program conducted over three years, teachers gained the confidence to be a vocal professional, which built their capacity to be a change agent and improve their schools (Taylor et al., 2011).

While it is important to provide time and space for collaboration, the principal creating these structures in a school is not the end, rather the beginning of the process (Lai & Cheung, 2015; Schrum & Levin, 2013). In order for teachers to successfully collaborate some have expressed a need to have professional learning that helps teachers improve collaborative skills (Abadiano & Turner, 2004). This is another area of support the principal can provide to make students, teachers, and the school successful.

**Collaboration to Build Teacher Leaders**

The previous section highlighted the major role the principal plays in fostering teacher leadership. The principal can create the conditions for teachers to take the lead. Over and over again, the research speaks to how the principal can set up structures for collaboration. Collaboration can occur in many formats: grade-level meetings, faculty meetings, special education meetings, subject area meetings, and department meetings (Abadiano & Turner, 2004).
Does collaboration foster teacher leadership? Ali (2014) examined this very question in Pakistan schools. The qualitative study examined what improved the capacities of teachers in elementary schools to become teacher leaders. Interestingly, the study began with teachers that were reluctant/resistant to working across gender, politics, and ethnicity. After some training, the qualitative data showed teachers eventually bridged the divide between their differences and saw the need to work collaboratively to be teacher leaders. As the participants took responsibility for their own learning and collaborated their confidence in pedagogical knowledge increased as well as their understanding of the need to work towards school improvement (Ali, 2014). Similarly, school improvement was seen in a study of Shanghai’s “backbone teacher”, the equivalent of a lead teacher, when the teacher fostered teacher leadership by mentoring young teachers, leading curriculum development, and creating opportunities for collaboration (Pang & Miao, 2017). Collaborative opportunities support teacher leadership as well as help novice teachers new to the field (Angelle & DeHart, 2011). For example, when a novice teacher is paired with a teacher leader both are supported in their development (Drago-Severson, 2009). This mentor/mentee relationship can also provide a space to reflect and be pushed/supported to grow into new challenges and opportunities for adult learning (Drago-Severson, 2009). This relationship also helps to prevent absorption from consuming these new teachers as a consistent group of teachers working together are less likely to burnout and want to leave the profession (Høigaard, Giske, & Sundsli, 2012).

PLCs, teacher peer groups, data teams, and grade level teams are just some of the various structures that support collaboration. Collaboration does support teacher leadership, but what supports these teacher leaders to be effective leaders within their group and across the schools (Allen, 2016)? The teacher peer groups examined in Allen’s (2016) study served as a
collaborative group and were examined to see how these groups lead to school improvement efforts when teachers are leading their groups. The group structure supported fostering teacher leadership, however, another factor contributed more to this cause. Allen (2016) found the contextual experiences from personal and professional lives outside of teaching were major supports to teachers positively leading in their respective schools. These experiences did not live separately from the work of the peer group. Instead, they became part and parcel of the collaborative structure when a participant would take experiences of organizing their friends or being captain of a sporting team and apply it to facilitating the peer group (Allen, 2016).

However, a quantitative study of 490 Belgian teachers in primary schools found that the only major contributor to changing teacher practices was reflective dialogue (Vanblaere & Devos, 2016). This reflective dialogue is similar to collegial inquiry as a means to supporting growth (in practice, leadership, and student achievement) for teachers and administrators through engaging in conversations surrounding pedagogical beliefs and practices (Drago-Severson, 2009).

Can the principal, by nature of only providing a structure to collaborate, support teacher leadership? The collaborative structure alone is not enough as was found in a study of teacher leadership in seven schools in Maine (Fairman & Mackenzie, 2015). Once teams are formed, trust and good relationships support efforts for teacher leadership. Through networks of collaborating within the building, as teachers meet and work together more frequently, they come to learn they have the capacity to solve the issues within their school. This is due to knowing there is in-house expertise from years of work on similar issues as well as knowing the student body well. The schools in this study featured participants that were both formal and informal leaders who were supported as teacher leaders by having collaborative groups that were built on solid relationships and thereby worked toward school improvement (Drago-Severson,
Trust, as a hallmark to forming a cohesive collaborative structure, was also found to be a major factor to having PLCs that supported the greatest amount of support for teachers (De Neve & Devos, 2017). In their qualitative study across three schools, the authors found PLCs supported beginning teachers, but the greatest amount of support came in the groups where there was a high level of trust, and the team had both informal and formal leaders.

**Conclusion**

While the research shows various findings regarding what fosters teacher leadership, two recurring themes seem to appear in a large portion of the literature. The principal and collaboration surface in much of the articles on teacher leadership. The two are not diametrically separate in supporting teacher leadership. Instead, their relationship is entwined. As discussed above, the principal creates the systems and structures that allow for collaboration. However, collaboration is not enough. Trust needs to be developed within and among the various groups of collaborators where they engage in reflective dialogue. The principal can model these practices and form the right teams made up of both informal and formal leaders from various backgrounds which serve to improve the capacity for teachers to lead and work towards school improvement. This merging of the principal with collaborative efforts is important to support teacher leadership. However, can effective collaboration occur without the principal? Below, an examination of what happens when the principal works counterintuitive to promoting collaboration will highlight the significance of this leadership position in working towards supporting teacher leaders.

**Barriers to Promoting Teacher Leadership**
Research has shown that both the principal and collaboration are tremendous supports for promoting teacher leadership. So, why do some schools struggle with promoting teacher leaders? Why do initiatives fail, sometimes before they are even out of the gate? Research has shown there are barriers or even forces that work purposefully against promoting teacher leadership. Two major themes are worth exploring as they are central to the success or failure of building teacher leadership capacity to support UDL. An exploration of the principal and teacher as the nemesis will be explored in the following pages.

**Principal as Preventer**

A qualitative study conducted in UK schools examined what prevents teacher leadership in schools (Muijs & Harris, 2006). While barriers consisted of external pressures and lack of time, the study also found the principal works counterintuitively to promoting teacher leadership when they are not willing to share the decision making or power with the teachers (Muijs & Harris, 2006). Some principals even attempt to block collaborative efforts among teachers. Principals unwilling to share power/decision making and those intentionally blocking collaboration results in teacher leaders not contributing to school improvement efforts (Taylor et al., 2011).

In a similar study, 95 teachers and administrators were interviewed to understand how teachers in high-poverty urban schools situate themselves as leaders and to what extent they support school improvement efforts (Johnson et al., 2014). The findings showed the relationship between the teachers and principal was paramount. For example, when the principal did not have an inclusive style and genuine interest in teacher perspectives, teachers did not make an effort to work on school challenges and some even considered leaving. Additionally, in many school districts, promoting leadership is focused on administrators or aspiring leaders looking to
move from the classroom to administration (Spillane, 2006). If a principal is willing to both share the leadership and develop teacher leaders, will the staff be ready? It depends on what the staff may be accustomed to. If this is still a novel concept to staff who are accustomed to working under a different leadership approach this can be characterized as a revolutionary change which is a “jolt to the system” (76), which affects the organizations “deep structure and nothing will be the same again” (76) (Burke, 2013). So, even when a principal is ready to share, developmentally the staff may not be ready for such control and power, and thereby may require supports to work towards a new way of knowing (Drago-Severson, 2009).

A qualitative case study looked at whether an external organization, where teachers engage in collegial inquiry, can provide the mechanisms for distributed leadership in school to work towards school improvement (Drago-Severson, 2009; Sales et al., 2017). While the external organization can contribute to distributed leadership within the schools, the principal was found to be a barrier when leadership was uninvolved. The principal was uninvolved, not only in the milieu of teaching and learning but also in creating the structures for collaboration and learning for all (Sales et al., 2017).

Some of the structures the principal can create to promote teacher leadership revolve around providing time and meaningful professional learning. Professional learning can support teacher leadership (Lambert, 2013; Muijs & Harris, 2006). The professional development should be creative and decisions about such learning should be made in conjunction with teachers (Muijs & Harris, 2006). Providing professional learning that is not relevant to the teachers or does not involve teacher input into what activities of professional development they will engage in prevents teacher leadership in schools (Muijs & Harris, 2006).

**The Teachers as a Barrier**
Just as students are part and parcel to the work educators engage in, teachers are the lynchpin to facilitating success for the students with whom they work. When teacher leaders work collaboratively toward a shared effort to learn, reflect, and engage in dialogue about practice they help to create a learning center that promotes school improvement (Drago-Severson, 2009). These learning centers are schools where both students and adults engage in continuous learning. Unfortunately, some have a silo mentality and prefer working as an individual (Sales et al., 2017). Or, teachers have been shown to collaborate to maintain the status quo (Spillane, 2006). Abadiano and Turner (2004) have also found teachers negatively impact their schools in a number of ways. They resist moving away from the traditional ways of teachers working together, have an overall lack of commitment, and sometimes do not get along with other teachers.

Why do schools/teachers sometime feel that collaboration is not occurring or not being done correctly? Research shows that it could be due to a number of reasons. For example, time, lack of structures, and negative teacher attitudes about collaborating are seen in studies as a major problem (Abadiano & Turner, 2004). The literature shows when there is a dichotomy of belief systems among teachers, a schism can form when teachers work towards innovation and collaboration while others prefer an individualistic approach in teaching (Sales et al., 2017). The silo ideology of these teachers can prevent distributed forms of leadership among the teachers from taking root to improve the school.

Teachers have been found to influence professionals not only within their schools, but also beyond the schoolhouse doors (Taylor et al., 2011). This influence can be wielded in both a positive and negative way. Taylor et al. (2011) found that teachers need to be involved for school improvement, teacher leaders increase student engagement, and teachers grow other
teachers and leaders. However, a barrier can be teachers deliberately blocking collaborative efforts within the school. While Fairman and Mackenzie’s (2015) qualitative study, as mentioned previously, showed promising results for collaboration leading to teacher leadership and teacher leaders contributing to school improvement efforts, they also discovered there is an ambivalence towards “traditional leadership” and colleagues being formally anointed a leader. Their findings show an “us versus them” attitude sometimes surfacing between teachers and leadership. Teachers in the study preferred to not be situated in a hierarchical relationship with their colleagues as this might harm their relationships with colleagues. The authors warn that using titles such as “teacher leader” can be harmful to school improvement efforts.

**Conclusion**

A number of barriers can contribute to building teacher leadership capacity to assist implementing UDL. Interestingly, the variables that support teacher leadership, the principal and teachers, can be the same variables that work against growing the capacity of teachers as leaders. The spectrum of reasons ranges from not providing the time and supports to an outright refusal, on the part of the principal, to include teachers. Similarly, teachers can hamper efforts because they do not want to be put in a situation that could be perceived as us versus them with their fellow colleagues to deliberate efforts that maintain individualistic work mentalities in a time when collaboration has been shown repeatedly to benefit students and teachers.

**Summation**

In order to properly close this literature review it is important to start at the beginning. Recent data demonstrates that many students in public schools may not be meeting benchmarks or graduating on time or at all (NAEP, 2015 mathematics; NAEP, 2015 reading; NAEP, 2015 Public High School Graduation Rates). Early intervention in elementary school may increase the
likelihood of students succeeding later on as students not on grade level by the third grade are at risk of not graduating (Hernandez, 2011). As such, can UDL assist schools in meeting the needs of students in elementary schools? And, what do schools need to consider for an effective implementation?

The review of the literature shows there is promise for UDL. A number of studies point to the success of UDL at not only the elementary level but higher levels of education as well. These positive results are sometimes in achievement outcomes and other times they are qualitative outcomes of increased levels of engagement and socialization with typical peers. However, other studies show UDL did not benefit students with disabilities as measured in quantitative pre- and post-test data.

Why the discrepancy? The literature reveals many themes that potentially impact UDL. The voices of students reveal both positive and negative experiences within inclusive environments, training at both the preservice and currently practicing teacher level plays a role, technology as a tool, and whether it is a benefit, is another factor, and finally how teachers and administrators either promote or hinder a UDL implementation could all be contributing factors to this discrepancy.

However, it is important for schools to carefully plan for an implementation. The literature reveals the important role of the nexus of principal, teachers, and collaboration in the success or failure of not only UDL, but enacting teacher leadership for school improvement efforts. Principals that support and provide the structures for inclusive leadership, collaboration, and mentorship and teachers who engage in dialogue surrounding pedagogical practices, strive for continuous learning, and seek out collaborative models rather than work in a silo, can promote teacher leadership. The barriers are principals and teachers that work in opposition to
the aforementioned variables for success. As such, schools need to carefully recruit teachers and administrators that have the mindset for continuous learning and collaborative work. In addition, staff that do not currently have these beliefs or practices need to be supported and pushed to shift their thinking from their current way of knowing (Drago-Severson, 2009).

As UDL’s empirical evidence is relatively new, there is limited research on UDL’s success in schools (Al-Azawei et al., 2016). It appears, with the limited number of studies, that UDL can be used to meet the needs of students in elementary schools. Future research can accomplish the important goal of adding to the existing base, which is relatively small. Studies should focus on promoting UDL practices in schools, particularly with unwilling teachers. Other studies should focus on examining technology and how it plays a role with UDL. Future research can also explore the work within teacher preparation programs. For example, does the current practice where there is little to no collaboration between universities and school districts best prepare teachers and eventual teacher leaders? Daniel’s (2016) qualitative study found practices across teacher preparation programs were inconsistent and there was no bridge between the field and teacher preparation programs. A new model where there is a third space that features a school and community partnership and work involving theory and practice could be a new improved model for teacher preparation (Sawyer, Neel, & Coulter, 2016). Another area of research should focus on how to hire effectively. In particular, strategies to recruit candidates with the qualities of lifelong learning and a mindset to work collaboratively. Changing the climate and culture of an organization to be a learning organization focused on teacher leadership and improved student outcomes is complex work (Schneider, Ehrhart, & Macey, 2013). However, when the structures of time, support, and trust are put into place to support innovation
and learning for all, then an outstanding culture can be actualized (Schneider, Ehrhart, & Macey, 2013).

In the end, UDL and its core three principles, which are based on three major neural networks, will hopefully be a sound and effective framework for schools to utilize to promote learning for all. As evidenced by low graduation rates, a revolution in learning and improved student outcomes needs to occur, and occur soon, if the U.S. is going to actualize its vision as promoted by the U.S. Department of Education to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access for all. The following chapter provides an articulation of the selected methodology for this research project.
CHAPTER 3 – METHODOLOGY

To best understand the experiences of five elementary educators, three of whom are classroom teachers and two of whom serve as administrators, in a suburban school district the qualitative methodology of interpretive phenomenological analysis (IPA) along with an interpretivism paradigm was used as it allowed me to interview teachers and administrators to answer the following question: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? The interpretivism paradigm enabled me to get at the lived experiences of my participants through semi-structured interviews. Additionally, the IPA method and labeling theory, serving as the theoretical framework, allowed me to see if there was a labeling effect in the classroom.

Research Paradigm

Paradigmatically speaking, a tightly controlled set of questions (post-positivism) would not allow me to ask follow-up questions or dig into certain responses should I need to understand the experiences of teachers, administrators, and students. The Critical-ideological paradigm allows one to be a change agent. Although this is appealing, I need to know what the current state of affairs is in regard to labeling theory and UDL. Maybe there is no need to affect change. As such, the interpretivism paradigm was the best lens to use to understand the lived experiences of the participants.

Research Method

The methodological approach for this doctoral study was interpretive phenomenological analysis (IPA). IPA is a qualitative research method that began to be used in the mid 1990s. At its core, IPA is a method that allows for “an established, systematic, and phenomenologically focused approach, which is committed to understanding the first-person perspective from third-
person position through intersubjective inquiry and analysis” (Larkin et al., 2011, p. 321). In other words, the researcher is aiming to understand how participants make sense of their experiences and contexts (Larkin et al., 2011). IPA consists of three major underpinnings: phenomenology, hermeneutics and idiography (Smith, Flowers, & Larkin, 2009).

Phenomenology is used frequently by qualitative researchers and has been utilized and written about much longer than IPA as it became a philosophy in Germany prior to World War I (Dowling, 2007). At its essence, phenomenology seeks to understand a phenomenon by looking at multiple individual experiences and drawing from that a common theme for how all the participants experienced the phenomenon (Creswell, 2018). Edmund Husserl’s (1859-1938) writings are a major influence on phenomenology and demonstrate his interest in reaching the essence of an experience rather than the individual experience (Creswell, 2018).

Hermeneutics refers to a theory or philosophy to understand an interpretation of a context, observation, conversation, etc. (Gallagher, 1992). Hermeneutical phenomenology is one type of phenomenology (Creswell, 2018). With this method, the researcher seeks to understand the lived experiences in a given context (Creswell, 2018). Another phenomenological method is transcendental phenomenology. Also called psychological phenomenology, transcendental phenomenology requires the researcher to “bracket” oneself (Creswell, 2018). “Bracketing” is essentially trying to understand the participants’ perspectives separate from the researcher’s own life experiences (Moustakas, 1994). Both hermeneutical and transcendental phenomenology require the researcher to acknowledge positionality and bias in their work. These two approaches to phenomenology, when juxtaposed with IPA, share the theme of acknowledging one’s positionality and bias. However, within the tradition of IPA, rather than “bracketing” one’s experience, the researcher allows their experiences to permeate the process of interpreting
the participants’ experiences (Dowling, 2007). This process of interpretation, within IPA, is termed double hermeneutics. Simply put, the researcher is interpreting how the participants are interpreting an experience (Larkin, 2013).

The third major underpinning of IPA is idiography which is concerned with the particular (Larkin, 2013). Idiography is made up the Greek word idio which means applying to the individual (Ponterotto, 2005). As Larkin (2013) expressed, the focus is on the particular, and, Ponterotto (2005) wrote that idiographic relates to a “focus on understanding the individual as a unique, complex entity” (p. 128). This is different than Husserl’s goal of arriving at the essence of an experience as IPA seeks to understand particular experiences of individuals.

While not in its infancy, IPA is relatively new as it was introduced in a 1996 article by Jonathan Smith. As such, IPA does not have the lengthy history and multitude of scholars as phenomenology which boasts names such as Husserl, Heidegger, Sartre, and Merleau-Ponty (Creswell, 2018). However, in addition to Smith, notable names associated with IPA are Brocki and Weardern (2006); Eatough and Smith (2008); Larkin, Watts, and Clifton (2006); and Smith et al. (2009). In the field of health psychology, IPA has experienced a tremendous amount of growth as shown in a critical review of 52 IPA studies that employed it as a method in health psychology (Brocki & Weardern, 2006). Eatough and Smith (2008) contributed that IPA continues to develop as a method. Within this approach, there is an ever expanding base of research questions as well as movement into a variety of disciplines. An important element of IPA is “attending to things that matter to people means distinguishing between different parts of experience and making decisions about which parts to focus on” (Eatough & Smith, 2008, p. 196). Larkin et al. (2006) argued against the finding that IPA is a method that requires the smallest amount of university supervision and is methodologically the least demanding as
reported by Madill et al. (2005). In fact, “IPA can be easy to do badly, and difficult to do well: it demands that a number of rather testing ‘balancing acts’ are maintained by the researcher” (Larkin et al., 2006, p. 103). Rather than report on an objective understanding of a phenomenon, researchers attempt to make sense of how the participants make sense of a phenomenon which makes the relationship between hermeneutics and phenomenology an important hallmark of IPA (Smith et al., 2009).

While IPA is a relatively new approach, it is not without its criticisms. However, it is important to distinguish between IPA and phenomenology to fully understand the debate. Phenomenology seeks to understand a person’s lived experience (Smith et al., 2009). IPA is built on the ideas of phenomenology; however, it includes philosophical underpinnings of hermeneutics and idiography as well (Smith et al., 2009). So, while IPA also seeks the lived experience it differs from phenomenology as it employs a double hermeneutical approach rather than a hermeneutical interpretation as seen in hermeneutical phenomenology (Dowling, 2007). Thus, the researcher is making sense of how the participants are interpreting an experience (Larkin, 2013). In doing so, the researcher does not bracket their experiences as in hermeneutical phenomenology, but rather personal experiences enter the process to facilitate interpretation (Dowling, 2007). Another striking difference is IPA’s idiographic underpinning which allows it to focus on the particular (individuals) rather than Husserl’s hope to arrive at the essence of an experience (Ponterotto, 2005). IPA, therefore, utilizes the three underpinnings to form a method that is both interpretive and descriptive (Pietkiewicz & Smith, 2014). However, some argue that IPA lacks standardization and it lacks in its ability to be interpretative as critics argue it is mostly descriptive in nature (Giorgi, 2010; Larkin et al., 2006). Another debate surrounds the role of language which some feel IPA does not recognize in the interpretation
process (Willig, 2008). And, while the method searches for the lived experience, it is absent of the root cause for such events, however, the underpinnings are said to allow for an exploration of these experiences (Smith et al., 2009). Finally, another major debate surrounds whether or not IPA is describing experiences or only opinions as questions remain about the researchers’ and participants’ ability to effectively communicate (Willig, 2008).

While there are various methods for doctoral research, interpretive phenomenological analysis was the right fit for this study. The aim of the study was to understand how administrators and teachers make sense of their experiences of an implementation of UDL. IPA allows the researcher to use their life experiences to help make sense of how the participants are making sense of their experiences. This double hermeneutic approach allows one to understand how participants are making sense of their experience without having to “bracket” one’s experience (Dowling, 2007; Larkin et al., 2011). Understanding the lived experiences of both teachers and administrators helped to inductively discover the impact of UDL on the participants. While IPA has some of its roots in phenomenology, a phenomenological study ultimately seeks to arrive at a shared theme among participants (Creswell, 2018). While this would be useful research, understanding the “particular” of multiple participants lived experiences as IPA does, allowed the researcher to honor each participant and have their perspective shared, especially as there are both administrator and teacher participants. While a narrative methodology is grounded in phenomenology and hermeneutics and gives voice to voiceless stories, it also puts participants in a vulnerable position through the use of long quotations that may reveal identities (Moore, 2015; Trahar, 2009). As educators were participants in this doctoral study, I was not willing to potentially harm them through the use of a narrative methodology. Case studies are helpful in
understanding a specific context, however, the lack of generalization of findings is a drawback. As such, it was not the preferred approach for this study.

While conducting the study, it would have been a mistake to myopically focus solely on participants’ answers during the interviews. Instead, both a reflexivity journal and field notes were maintained throughout the duration of the study. In fact, analysis occurred concurrently with data collection rather than after the data was collected (Miles, Huberman, & Saldaña, 2013). The journal allowed for a meaningful and comprehensive reflection of who I am as a researcher. Doing so helped to continue the exploration of positionality and how my biases impacted the study. In addition, revealing reflections to the reader increases transparency and trustworthiness as a researcher. The field notes when used in conjunction with answers to interview questions, allowed for a more accurate representation and interpretation of the context, behaviors of the interviewer and interviewees, and when analyzed with the reflexivity journal, helped to make a more robust and complete dataset thereby improving the validity of the study.

**Population and Recruitment**

The site of the study was a suburban school district in New England. The district was established in 1967, serves two towns, has an enrollment of over 2,400 students, and has fully implemented UDL. To gain access to the site, I sent information about my study to Ella. Ella is not only the district’s assistant superintendent of schools, but also an expert on UDL who has authored a number of books on the topic. The information I shared with Ella included the purpose of the study, time commitment expectations for participants, guarantees of confidentiality, and consent forms. From there, Ella reached out to her staff to see if anyone was interested in participating. A description of the recruitment materials and IRB consent forms are located in the appendices. Ultimately, the desired number of participants was six educators. The
goal was to recruit two administrators and four classroom teachers. All six needed to have experience with UDL in an elementary context. In the end, a total of two administrators and three classroom teachers participated in the study.

**Sampling Strategies and Criteria**

The site for the study was an elementary school where UDL has been fully implemented for a number of years. All participants were required to have at least two years of experience with UDL in an elementary context. In order to see multiple perspectives of UDL, three classroom teachers at various grade levels were interviewed. In addition, a building level administrator and a district level administrator were also interviewed. The variety of positions and levels ensured data was collected from those that not only planned the implementation but also participated in trainings and engaged in using the UDL framework in practice. Purposeful sampling was used to find participants for the study. The size of the participant pool at five was relatively small, however, it aligned with the methodology as IPA strives for depth and breadth rather than quantity to help collect rich data (Larkin et al., 2011; Pietkiewicz & Smith, 2014). IPA Studies have been published with “one, four, nine, and fifteen participants” (Pietkiewicz & Smith, 2014, p. 4).

**Data Collection**

When employing IPA as a research method, researchers collect qualitative data from a variety of sources. Artifacts, focus groups, and interviews are options that allow the researcher to gather information in an open-ended manner. Rather than a structured approach to interviewing, IPA calls for semi-structured interviews which allows the researcher to follow-up and probe to gather additional information to help the researcher make sense of how the participants are making sense of their experience. For this study, one to two rounds of interviews
were planned to ensure adequate data collection. IPA seeks to collect verbatim interview data, so interviews were transcribed (Larkin et al., 2011). When collecting data via interviews, the interviewer must have strong interview skills and, ethically, attend to how the interview is affecting the interviewee, and, if necessary, stop the interview to protect the participant (Pietkiewicz & Smith, 2014). As such, each interview was about 45 minutes, recorded, and based on a semi-structured interview format. This allowed for follow-up questions to be asked to dig deeper into responses. Additionally, as participants have a variety of positions and experience with UDL, questions were tailored toward specific roles and responsibilities when needed. In order to make the participants feel comfortable, they choose the location of the interview. An interview protocol, attached in the appendices, was followed to ensure participants were fully informed about the study and consented to being recorded. During the interview, and prior to recording, rapport was established. This was done by spending a few minutes going over the study, answering any questions, and obtaining signed consent. An acknowledgment that the study is intended to help educators and students was made explicit. In addition, participants were told if they feel uncomfortable and want to stop, they can do so at any time. In addition to the recording, participants were also told that notes and jottings may be taken as additional forms of data.

**Data Coding and Analysis Process**

Analytic methods under IPA for this study considered not only interviews but also observations of the participants during the interview, analytic memos, and contextual factors to help understand how participants made sense of their experiences and contexts (Larkin et al., 2011). Overall, the analysis was an inductive approach where the data from participants built up to and created themes to be reported out on. Pietkiewicz and Smith (2014) suggest part of a
thorough analysis should include a close reading and/or listening of the transcript multiple times as this could provide new understandings. In addition to this process, analytic memos were created that recorded reflections and observations from the interviews. The left-hand margin of the transcript was used to take notes on observations about what the participant said. Next, Larkin et al. (2006) explain that essentially each line (splitter) of the transcript be coded with a short summary or theme in the right hand margin. The codes assist the researcher in analyzing large amounts of information (Saldaña, 2016). Each transcript was examined to look for connections across the themes. This process was followed for each participant. The analysis was iterative. As such, data was reviewed across participants and themes to find connections among emerging themes which was grouped with a descriptive label (Pietkiewicz & Smith, 2014). It was necessary to have two rounds of coding in order to refine the data in smaller categories (Miles et al., 2013). This process resulted in a list of themes and subthemes that were considered for writing the narrative of how I am making sense of how the participants are making sense of their experiences (Pietkiewicz & Smith, 2014).

Transcript data was coded. What is a code? While there are multiple definitions, this paper uses the working explanation that “codes are labels that assign symbolic meaning to the descriptive or inferential information compiled during a study” (Miles et al., 2013, p. 71). In other words, codes assist the researcher in taking large amounts of data and sorting and organizing the information so it can be analyzed (Saldaña, 2016). The analytic process of coding was done in two formal rounds. The first round was in vivo and the second pattern coding. In addition to following these two processes, analytic memos, jottings during the interview, as well as reflection complemented the coding. While the first round of coding was used to organize the data, second round coding was necessary to further refine the data into even smaller buckets
(Miles et al., 2013). As focused coding, axial coding, and theoretical coding are useful in
grounded theory methodologies; elaborative coding works well with textual data; longitudinal
coding is useful for change over time; pattern coding was the preferred method (Saldaña, 2016).
Pattern coding was useful for this study as it allowed a large amount of data to be compressed
into more manageable categories thereby leading to a pattern code and ultimately a theme
(Saldaña, 2016). For example, the hypothetical in vivo codes of “kind of unprepared”, “training
staff”, “time to coordinate”, and “don’t feel like you know enough about it” could be assigned
the pattern code: training. In analyzing the data, rather than use computer software, transcripts
were marked up by hand.

Limitations

All studies have limitations that impact the results, findings, and implications. For this
study the major limitations were: author bias, generalizability, and the missing voices.

First, as I am a big proponent of UDL and its promise to meet the needs of all students, I
need to be well aware of how this may impact the interview and analysis of data. Therefore,
readers of this study need to be aware of any potential bias.

Second, the voices in this study are those of five educators. How much of their story can
be generalized to other contexts? Can elementary educator views transfer to other levels? Can
this suburban setting help those in urban contexts? While the study will be helpful as it adds to
the literature base, it is by no means a panacea and further studies, similar to this, should take
place in various contexts to increase generalization.

Third, while teachers and administrators wove their stories throughout the study, there
was a void in the most important voice of all: student voices. Ultimately, this study is aimed at
helping improve student outcomes, however, educators can only provide so much information
and will never be a substitute for student perceptions. Student voices should be considered in future studies.

**Reciprocity**

As an educator, I want to improve the lived experience of all students. The aim of my research was to shed light on how UDL is a framework that can push schools in a direction that helps improve not only outcomes for students, but also works toward equity and social justice. This study and its results will be shared so scholars and practitioners alike can utilize it to improve theory and practice. As such, I offer participants in this study a voice and door through which they can venture to join me in serving our students.

**Trustworthiness**

A number of steps were taken to ensure both trustworthiness and validity for this study. First, bias was revealed in great detail to alert the reader to any potential influence this may have on the study. For example, my support of UDL needs to be taken into consideration as one reads the study. Second, a variety of triangulation procedures were used in the research. As such, interviews were used along with reflexive journals and field notes to ensure multiple sources of data were analyzed, which broadened the amount of data. Another form of triangulation involved re-coding data at least one week from initial coding. This allowed for a close examination of internal consistency. A final form of triangulation was member checking. This was accomplished by emailing participants a copy of their transcript from the interview and a draft of chapter four for their review. Participants were asked to offer any feedback on the transcript and chapter four which ensured what is written is an accurate portrayal of their interview and experiences.
Rich thick description was also used to help establish trustworthiness (Merriam, 2009). The stories of the participants provided perspective on their experience. Detailed descriptions were used to create a clear picture for the reader of the context, interview, and findings so the study serves not only to provide theory but can also be used in the reader’s own area of practice.

**Protection of Human Subjects.**

Research should be ethical and do no harm to the participants. As such, pseudonyms were used to encourage sharing and also to ensure participants were protected should they say something that may be viewed by someone else as negative. In addition, informed consent was given both orally and in writing. Permission to conduct research was also obtained from the school district. To ensure the study was ethical, I attended to how the interview was impacting the interviewee to determine if the interview needed to end to protect participants (Pietkiewicz & Smith, 2014). Finally, before beginning the research I applied for and was given IRB approval.

**Data Storage**

Interviews were recorded and stored on a digital recording device. However, prior to recording, I explained that pseudonyms will be used. Rather than send the recordings to a transcriptionist, software was utilized to transcribe the recordings thereby ensuring protection of the participants’ confidentiality. My personal computer was used to store transcripts and correspond via email with participants. After writing and finalizing my dissertation for successful completion and defense, recorded interviews, transcripts, and email correspondence were deleted.
CHAPTER 4 – ANALYSIS OF FINDINGS

How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? To answer this research question, the qualitative methodology of interpretive phenomenological analysis (IPA) along with an interpretivism paradigm was used in semi structured interviews with five elementary educators, three of whom are classroom teachers and two serve as administrations, in a suburban New England school district. Framing the study was the theoretical framework of labeling theory, which was used to see to what extent a labeling effect manifests itself in the classroom. What follows is a close look at the study participants and major themes that emerged from their voices.

Participant Profiles

The five participants work in the same suburban school district in a quaint New England town. Pseudonyms were used for both the district and the participants as a strategy to both protect participant participation and encourage complete transparency. A major theme of UDL is removing barriers and providing access for ALL. Interestingly, there were two signposts upon arrival in the town for the interviews. The two signs were very much in line with UDL’s philosophical underpinnings. The first sign alerted drivers they were entering a new town and read: Necclaustraville-where all are welcome. The second sign was displayed outside the town’s public library where their sign shouted UDL as well: Open to All. Coincidence? The parallels between the signs and what UDL offers educators and students were striking: A framework for all. The district’s five schools serve around 2,500 students. What follows is a profile of three teachers, a building level administrator, and a district level administrator. All participants have experience working in educational settings that did not utilize the framework of UDL prior to
working in this district that has been using UDL for about six school years. As such, participants were able to juxtapose the two approaches.

**Ella.** Ella is a district level leader who was trained in UDL when she was a middle school teacher in a neighboring district. Ella was recruited to her current role to head up the implementation of UDL. In addition to serving as a district level leader, Ella presents nationally and internationally and writes books and articles that focus on UDL. Ella is a UDL guru and has a tremendous following on Twitter. Ella was also my first interview. So, in addition to being worried about my recording device not working, I felt out of my league considering Ella’s level of expertise.

When I arrived at Ella’s office I was greeted warmly by her administrative assistant, who asked me to wait in what appeared to be a conference room. The room was small and contained an old wooden table in the center surrounded by six chairs. In a few minutes Ella walked in, greeted me by name, and sat down. Her positive energy was palpable, so I could easily understand why she is such a dynamic presenter. Ella’s positive energy put me completely at ease. Throughout the course of the interview she was very excited to talk about UDL and answer my questions. During the interview she received a call from the superintendent, answered it quickly by explaining she was in a meeting and would get back to her. She appeared 100% invested in sharing her expertise and opinions on UDL to help with my study. At one point she remarked how when she was doing her dissertation and struggling to find participants, she promised herself if ever asked to be part of someone’s doctoral research she would say yes.

Ella philosophically believes that “… every kid can be really successful.” Throughout the interview she was passionate in her responses, and it was clear from her answers that her work is to remove barriers for all students.
Lucy. Lucy has been in the district for about eight years. Prior to coming to the district, Lucy worked for a supplemental education company. Lucy started in the school as a fourth-grade classroom teacher and then switched to a role as a K-4 curriculum leader and is now back teaching fourth grade. Lucy has about six years of experience with UDL and was in the district when Ella launched UDL’s implementation. Lucy was my second interview of the day. After a successful first interview with Ella, I went into my conversation with Lucy in a more comfortable and relaxed manner.

Lucy was warm, engaging, and passionate about her students. She often shared vignettes of student success stories in her classroom. “I was thinking about a young man whose mom said it’s the first year that a teacher has ever liked him. He said I’m horrible at fractions, and I said I have good news. No one has ever left me and said they are horrible at fractions… you can ask anybody in the fifth grade. No one leaves my room thinking they’re horrible at fractions… We just took a new module and he got 100%.” Lucy’s insight into the implementation of UDL expanded on some of the barriers in the literature. She mentioned that the “perceived expectation” for the initiative from the staff can impact/prevent a successful implementation of UDL.

Don. Don has been an educator for 27 years, 18 of which have been spent as an elementary building administrator in the district which was the focus of this study. As such, Don does not have experience teaching in a UDL environment. However, he was part of the leadership team that assisted in the implementation of UDL when Ella arrived in the district. Don’s school has about 300 students in grades K-4. Don was my third interview in the study which was conducted on a different day.
Early in the interview, when I asked about his background and how he came to learn about UDL, he brought up teachers being skeptical about UDL. “Teachers at the beginning were a little skeptical, and it’s a little overwhelming.” When asked about student achievement growth under UDL, Don did not really seem to see an impact. “I think data wise, you know state testing, probably not. We do pretty high on that, but I think I see a better engagement of the student work. I actually see a better engagement. I see teachers using more strategies…I got to reach this child. How am I going to reach this child and reach the slower child and this child is really cranking? So, I think they are cognizant about meeting a lot of needs.” This was interesting and contradictory to Ella’s experience. However, Don was looking at it from a micro view as he is at the building level and Ella, as a district level leader, was looking through a macro lens. As a follow up to Don’s explanation that engagement is higher, he replied, “I think so” when asked if the joy in teaching and learning is similarly up.

**Diane.** Like the other participants in this study, Diane was in the district during UDL’s implementation launch. However, her background has not always been at the elementary level. Before her current role as a technology and innovation teacher and coach at the elementary level, Diane was an ELA teacher at the district’s high school. Her perspective offered a dynamic and systemwide lens.

Diane was interviewed a few hours after Don and her care for ALL students was evident in her responses during the interview. When asked about what she meant by UDL “made so much sense.” she responded, “It made sense because it gave me options that I didn't know that I had, that I didn't know that were available for the kids because I came into teaching when I think the Common Core just came around. No Child Left Behind was kind of on its way out, but it was still really like the one way you know, the one definition of success, the one way for kids to
learn and like this was the bar and if the kids don't meet it, well then you know, what are we going to do? But that's not good enough. So, with the UDL strategies it was bringing in that design thinking. I love design thinking. Like having a goal to do whatever it takes to modify it and get there. It just gave a lot of solutions for some of the problems that I had with just the main one way of learning, the one way of working.”

**Julie.** The fifth and final interview was with Julie. Julie has been a second grade teacher in the school district for 27 years. Julie’s perspective was completely from the lens of an elementary teacher who has undoubtedly seen countless initiatives and changes in the school district. The pendulum has swung back and forth a few times in her tenure. As such, her perspective was invaluable in understanding best practices when implementing UDL.

Julie was warm and inviting and early on in the conversation her level of experience and expertise was obvious. Julie’s perspective keyed in more so than the other participants on the resistance by teachers to utilize UDL. This resistance was not only seen in the early stages of the implementation process but even now when it is an expectation that all teachers utilize UDL K-12. What was new to hear was how resistant the teachers were because they were expected to utilize UDL principles in their teaching, yet leadership was not using the principles of UDL in their practices with staff. “We often joke that we we're not UDL. Like the stuff that we're asked to do is not very UDL because the structure of the administration is bringing it down on us. So, the joke is well would they want us to do this for our kids? But they're not letting us do this for our own professional development, for our own teacher practice. There's kind of like a hypocrisy in that. And so then they turn around, and I guess right now they're making our schedules for us for next year, and they're going to hand us a piece a piece of paper that says
from 9 to 10 everyone is going to be teaching math. From 10 to 10:30 everyone is going to have a 20-minute snack and then you're all at the same exact time. How UDL is that?”

The participant profiles were written to give context to the participant’s individual backgrounds both prior to and during the UDL implementation. In addition, an effort was made to situate the reader in the same space as the interviewer to illuminate and humanize the five participants both individually and as a group, all of whom are dedicated to reaching ALL students. The next section explores the major themes derived from the voices of these educators.

Themes

As stated earlier, this dissertation uses the working explanation that “codes are labels that assign symbolic meaning to the descriptive or inferential information compiled during a study” (Miles et al., 2013, p. 71). These codes assist the researcher in taking large amounts of data and sorting and organizing the information so it can be analyzed (Saldaña, 2016). The analytic process of coding for this dissertation was done in two formal rounds. The first round was in vivo and the second was pattern coding. In addition to following these two processes, analytic memos, jottings during the interviews, as well as reflection complimented the coding. What follows is a description of the analysis process.

The analysis did not start with coding, rather the analysis began during the interviews as jottings were made to note participant energy and excitement when explaining the impact of UDL as well as their dismay when some said teachers were barriers to implementing UDL. In addition, as the interviews were transcribed and listened to repeatedly, analysis continued when certain words like “joy” or “barrier” jumped out and possible themes began to emerge even prior to coding. Saldaña’s (2016) recommendation is to “clean the kitchen as you go” when coding. This strategy was used throughout the analysis process when coding as well as listening to the
interviews. For example, a couple of participants talked about the physical environment of the classroom during the interview. At first, this seemed like a likely theme when interviewing, however, while transcribing it appeared less important and subsequently not sufficient for a theme. The jottings, memos, observations, and coding felt very iterative as ideas for themes and categories surfaced, subsided, and resurfaced. However, following a formal plan of first and second round coding provided more structure and direction as shown below.

Rather than using computer software to code and analyze the data, all work was done by hand. The first step was to do first-round coding. In vivo coding is widely used in qualitative research and often utilized by neophyte researchers as well as studies that seek to hear the participant’s voice (Saldaña, 2016). As such, in vivo coding was used to capture the participant’s words and phrases. Rather than coding larger sections of text (lumper), “splitter” coding was used to code in more frequent and smaller sections (Saldaña, 2016). For example, four lines of text produced “made so much sense”, “I love this”, and “solves or will help me solve” as key codes for the participant’s voice. After reading through the transcript and using in vivo coding, a total of 689 codes were produced.

While the first round of coding organized the data, second-round coding was necessary to further refine the data into even smaller buckets (Miles et al., 2013). Pattern coding was used for this study as it allowed for a large amount of data to be compressed into more manageable categories thereby leading to a pattern code and ultimately a theme (Saldaña, 2016). For example, the in vivo codes of “superficial understanding”, “lack of expectation”, and “all those choices are not going to work” were assigned the pattern code: misconceptions.

Like the first round of coding, secondary coding was done by hand. Each of the 689 in vivo codes were written on a separate sticky note. The sticky notes were color coded by
participant. This made it easy see where participants fell both individually and collectively among various codes. The line number from the transcript should have been written on the note with each in vivo code to allow for easy retrieval. As this was not done, it took longer to find the section where the quotation was pulled from when analyzing information. Spreading the sticky notes out allowed for a great visual of the codes as well as a quick way to move and shuffle around various in vivo codes to determine pattern codes. To make meaning of the data and determine the pattern codes, interview questions were reviewed in conjunction with the in vivo codes to look for emerging patterns. Some patterns were easier to detect than others. For example, “refused services”, “hidden inequity”, and “teachers use labels and base decisions” spoke to the eventual pattern code of othering. While, “those 12 became my UDL rock stars” was initially seen as a best practice but after consideration was reorganized and moved to the pattern code of training which more aptly organizes the in vivo codes. In the end, a series of moving the sticky notes, listening to the interviews multiple times, rereading field notes as well as analytic memos, and two rounds of coding led to four distinct themes: (1) beware of othering, (2) prepare for barriers at every turn, and it is not just time, (3) “there are sparks of brilliance”, and (4) a pathway for a successful implementation.

**Theme one: beware of othering.** The five participants in this study all had experience with more traditional approaches to teaching prior to the implementation of UDL in their school district. When participants were asked to juxtapose UDL versus non UDL environments as well as how labels play out in school, they often spoke to students standing out more in traditional classrooms or possibly rooms incorrectly implementing UDL. Throughout the interviews it appeared that a marginalization of students may be taking place. This was confirmed through the two rounds of coding where a total of 97 in vivo codes spoke to othering as evidenced below.
Julie spoke to what teaching and learning looked like prior to Ella’s introduction of UDL. Julie said there was “one definition of success” and “one way for kids to learn”. Similarly, Don expressed that “in the old days you had a lot of traditional teachers”. When you walked into a classroom students would “…all be doing the same thing. They even would be all reading the same books.” Ella had a lot to say about more traditional approaches to teaching and learning.

So let's say I'm a second grade teacher and I know nothing about UDL. I'm probably going to pull a Charlotte's Web off the shelf. I'm going to sit down with kids. I'm going to have like some piggy puppet. I'm going to read to them out loud. All the kids are going to sit with their legs crossed watching me and then at the end I'm going to be like everyone you know we're reading this book because we care about friendship. Now everybody write about why Wilbur and Charlotte are good friends. That's traditional. And a teacher who is loving and warm would get most kids really excited about that. Right. You know they’re all going to wonder what happened with Charlotte. The issue is you're going to have English language learners who do not know English yet. So reading a book in English is completely inaccessible. You're going to have students who you know through whether it's just a short attention span or ADHD it’s going to be a real barrier to sit and listen to someone read, which for me would be my own personal nightmare. You're going to have students who don't have any background knowledge of farm life. So some of that vocab is going to be really very different for them. You're going to have kids who have already read it and saw the movie and they're bored out of their minds. So we look at these hosts of barriers.

The participants shared the belief that traditional approaches to teaching were not dynamic or student centered. In settings not utilizing UDL or where UDL is not being
implemented correctly, there was a noticeable and negative impact on students for both teachers and students. Diane was passionate in her response on how teachers and students treat students differently based on their label.

I feel like the label puts up more of a barrier than it does to help break one down because there is so much extra quote unquote extra stuff. In the classroom students notice when a student gets pulled out. They notice when this kid get this and that. And then even in the high school I had a student who refused services because she didn't want the ELL teacher to come in and work with her and sit with her. She did not want to be identified as having an ELL label.

Ella, understanding the harmful effects of students being labeled or separated from their peers, expressed teachers “100%” treat kids differently in non UDL environments when they have a 504 plan or IEP. Ella explained it is a “self-fulfilling prophecy” and that “signaling out causes a crazy stereotype threat.” She went on to explain, “I do not want kids separated permanently from their peers.” Ella remarked, “It makes me so sad to know that in some schools some kids are still completely separated from their peers and I just can’t work in a place that would do that.” Similarly, Lucy felt when UDL is not implemented well or at all, students are treated negatively. “It’s more noticeable. Right. It’s more noticeable that that kid needs manipulatives.” Diane explained that when supports and materials are not provided universally and ubiquitously, “I think it would be like oh that’s for this kind of student not me.” Don, when asked if he feels kids with a label are treated differently, thought there was a negative self-fulfilling prophecy and expectations were lower.

I think so. I think for some it's you know that they [students] come in and I mean if their teacher knows of a kid's behavior since kindergarten you know they're going to get the
child and sort of right away: I need help, I need help. We're trying to get away from that and see the good and see what the child can do and what we've done in the past...this has worked. Don't freak out. You know there's a plan in place and things like that so that's what I think I've seen a little less of that and you know it's actually funny because we were working on class placement now and I know in the old days we said those kids can't get that teacher and so forth and so on. But now you are saying any teacher can deal with any kid now.

When discussing traditional approaches versus UDL environments, Julie agreed “absolutely” students stood out less in a UDL classroom.

It’s not uncommon for somebody, even kids from other classrooms, to walk in here, take a Chromebook and walk out without even talking to me. It's just kind of how we function. You know like they're plugged in there because it fits in my room and I have a bigger room so the storage is better in here and the kids come through the back door and they just grab one and walk out. So it's never a big deal that someone has a Chromebook on their desk or somebody is putting the headphones on and there's some moments when I look up and I think I never thought that kid would want that.

In a classroom that anticipates and plans for barriers according to the principles of UDL, Julie expressed “everyone gets the opportunity.” For example, she explained that if a student with an individualized education plan (IEP) has access to headphones she “wants ten headphones. I have one kid who needs specialized seating, so I have six [seats]. We have a conversation about this is what it’s for. This is what you can use it for. No it doesn’t belong to anybody.” Julie’s approach of providing supports to all students, not just those requiring accommodations according to an IEP or 504 accommodation plan, supported her principal’s
experience in his school. “Now you walk into a classroom and kids will be over there on the iPads, kids on the Chromebooks, over their reading, a small group over there with the teacher, maybe a teacher conferencing with two kids, maybe an assistant working with a group of kids.” Lucy’s perspective was that students are more willing to use supports and materials when they are provided to all students and treatment by peers and teachers is better in a UDL environment.

So kind of like I was saying with the squishy balls because there's this emphasis on removing barriers teachers are having to think about having those things accessible to everybody and that's where it makes the difference. Because now teachers are thinking oh everybody should have access to this whereas before they probably just didn't think of it that way. Do you know what I mean? So it's a really interesting question to ask but I think UDL is very powerful in removing some of those labels because if you have a teacher who is implementing it well, just because I have a stress ball, doesn't mean I'm a 504 or IEP kid. So I think I think it definitely removes [barriers] and the whole idea like you say a manipulative. It's because they're really there for everybody you know and again it's kind of like you've probably heard the analogy… of a dinner party. You've heard that analogy with UDL. So because you've served everything…everybody… you might not be a vegetarian but if you want to eat some vegetarian food that day you can because it's there. So probably my top math student uses those fraction tiles every day up there. If I have free choice she says can I play with fractions. Fraction tiles are supposed to be for the kids who need a more concrete exposure to fractions. And without them being available for all kids they just end up in a bag on the kids’, who are struggling, desks as opposed to being there for everybody to use and enjoy. So yeah, it's I...I Agree 100%.
In Lucy’s classroom, students did not stand out. She believed “you would have no idea who is on an IEP.” When asked if she, hypothetically, taught in a traditional classroom and a special education teacher arrived and pulled a student from the classroom for instruction would she agree it creates an othering of those students from peers and teachers? She agreed “100%” and went on to say “and in kids’ expectations of themselves.”

**Theme two: prepare for barriers at every turn, and it is not just time.** Barriers are not unique to schools or any initiative. UDL is no exception to implementation roadblocks. Participants did mention time as a barrier, however, the issue of not having enough time is both obvious and rudimentary to educators. Elaborating on time would not add to the canon. Instead, after looking through field notes, revisiting the transcripts, and analyzing almost 200 in vivo codes, the voices of the participants illuminated two major barriers to the successful implementation of UDL in the district.

Lucy emphatically pointed to teachers as the biggest barrier to implementing UDL or any new initiative.

Teacher mindset. I mean especially having kind of my pseudo administrative role. There's just a real resistance to change I think at times. I think that all people and teachers are no exception. I feel that how I've been doing it for 20 years is working and so why this new thing coming down the pipe and in five years it's going to have a new acronym and be a different thing. I think that that whole resistance to change and not always having a growth mindset is probably the biggest barrier to implementing any new thing in any district or corporation.

Lucy explained that the teachers’ union filed a grievance when a previous program was introduced. The program’s introduction seemed to raise concern and the “place pretty much
went nuts.” Even smaller and less impactful changes for the staff seemed to cause resistance.

Julie stated, “That'll be a fight another day for us when they hand it [master schedule] to us next fall when that comes out.” Lucy’s perspective on teacher resistance was echoed by Julie. “Well, I think a lot of people can say things like well we have been there. This is coming around again.” While Don did not explicitly name teachers as a barrier in his remarks when explaining the curriculum was the barrier, he implicitly named teachers as a barrier to UDL’s successful implementation. “We got to finish this curriculum. We can do this we got to do this. So it's like sometimes you have to take a breath and you know take a step back and that's been sort of hard for teachers. They don't want to, you know, losing part of it, which is hard. I think it's everywhere.” Don explained, “how dense it’s [curriculum] got. It’s a lot of things we have to cover now in a short amount of time.” In a sense, teachers felt pressured to cover the curriculum at the sake of not utilizing UDL.

Diane also pointed to teachers as a barrier as seen below.

Whereas a majority of people were very resistant to it because to them it was another initiative and to them it was very much well if it isn't broke don't fix it. Our test scores are fine. Why do we need to change the way we do things? There is still some resistance now to that but that was especially in the beginning. People resisted that a lot.

Ella commented about various percentages of staff who, even though it was an expectation to implement UDL, were doing the work.

A solid 50% of our staff are like very proficient. Meaning, if I walk in, they have thought about the barriers, kids are doing different things, you know things like that. I would say another 40... I wouldn't go that high. Maybe another 35% are like really invested in it and they're trying it in some places. I might be like I'm working on it with my
assessments or I'm working on it on my note taking or something like that. And I have a very small amount you know maybe 10-15% at most who are still kind of waiting me out.

Ella further explained that teachers felt conflicted about their role as an educator. Some teachers would ask, “When did it become my job to eliminate the behavioral barriers and the social emotional barriers”?

Ella elaborated on her remarks. “And I think that that speaks back to you know I still think there's a lot of people who think it's the kids fault.” Her remarks showed, again, teachers were a barrier to UDL’s implementation. As Lucy said previously it is “teacher mindset” and “teachers who say they're on board but then behind your back they're not on board.” Ella’s comments below illustrate another example of teacher mindset putting up a barrier.

The other counter argument, the one that I want to like poke a nail into, is the standardized test argument which is we don't measure success this way. And I'm a very vocal defender, not a defender, but like I'm in opposition of the way that we test kids. I think it's ridiculous because in real life I can listen to an audiobook any time I want. Why can't every kid access audio on an English test? That's silly. But it's silly like it's just not the way that we learn. To say like we want kids to be ready for college and careers and college and careers like the sad truth everybody is that they can use Dragon Naturally Speaking. They will. These kids that are babies can listen to the text. They will have a choice of what to do. So like if you need me to understand the Declaration of Independence and write a response to it I can get a summary of it. I can ask other people. It's not realistic and that's what pisses me off about them. I always say to my teachers I would rather teach in a really accessible engaging way to prepare kids for a really inaccessible test than just teach in an inaccessible way. Now what I do say is I think that
test taking is a unit. It’s a goal and like what I always do with my kids is I taught in a universally designed way until it got to be like April and then I'm like okay our goal now is how to beat this stupid test because the reality is that this is not a useful skill. I mean you'll have to take them in college and things like that but I will never in a million years not be able to have notes when I give a presentation and not be able to call somebody to ask a question like ever in a billion years. I would say to them let's hit hard on the things that I taught you. Remember context clues. You're going to be asked to read some stupid thing that you're not going to want to read. Let's remember our context clues. So let's think about you can answer a question about a Dr. Seuss book that's not even real words. It doesn't make sense because you know sentence structure. You know how to figure out these things. We’d play games with it and stuff and my kids would kill the test. I don't need to from September to April to be like practice test practice test. What I did is say standard, standard, standard, standard, and then said in April you know the standards I've taught this. You've learned it. I have no doubt that you can do these things. Now we're going to talk about that pesky language that says task, purpose, and audience. Your audience is these crazy people who sit in Pearson and correct your test. I'm going to show you what they want and like that's kind of what I say here. It's easy for me to say because I'm not a teacher and I'm not responsible for the scores. So I still think that some teachers feel very responsible for those scores no matter how many times I tell them. Have faith that if you taught the standards the kids will do well. But you know I'm guessing when you talk to teachers they're going to say you know the district holds standardized tests over our heads. And it's not the district, it's public information. I mean that's the way that we were. That's the way that we're assessed and that's our
accountability. I would rather walk into classrooms and see amazing learning and how the test scores go down which would never ever ever happen because the kids are really engaged in learning. They're going to do well. I would say to them like walking into classrooms where a bunch of first graders are silently working on math sheets is like heartbreaking to me. I don't want to see it. And I still see it sometimes. And we're moving to the math workshop model which is like really starting to catch on. And so you're going to walk in and it's much more stations and whiteboards and iPads which is what I want to see. It makes me sad to go in.

“It makes me sad to go in” speaks directly to what happens when teachers are a barrier to implementing UDL.

Another barrier to implementing UDL expressed by the participants were the misconceptions about UDL. These misconceptions caused confusion, poor execution of UDL, and raised teacher anxiety. Ella implied poor execution of UDL may cause harm. “I don't see how UDL if it's done well could ever hinder a learner.” Julie recalled the first time she heard about UDL.

She [ELLA] asked the people who took her class [UDL class] to stand up and turn around and talk to the people around them about what UDL is and how to define it. So the person near me stood up and started to talk and she was really having a hard time articulating it and then finally she just said you just gave everyone choices and everyone gets to show their learning in a different way and everyone has a choice. I thought wow that's got to be chaotic in a lot of ways.

Looking back at UDL’s introduction, Julie said there were misconceptions. “So I think there was a very superficial understanding of what UDL was.” The confusion and misconception
about choice was seen by other participants. Ella talked about how teachers believed choices for students would not help learners. “Kids just need to sit and listen and be respectful and like giving them all those choices is you know it doesn't it's not going to work.” She went on to explain in detail.

Well I think that a lot of the counter arguments [for UDL] are just not a really strong understanding of what it [UDL] is. So like kids shouldn't always get to choose what they want to do. I 100% agree with that but they should get to choose how they're going to meet the same standard. So I think that gets lost sometimes and we picture like if a standard is solving equations, we're like well I don't want the kid over there playing with Playdough. That wouldn't be a choice because every pathway has to lead to the same destination.

The preceding response spoke to both a misconception of what UDL was and how the misunderstanding was a barrier to implementation. Diane went into great detail about some of the misconceptions surrounding UDL.

I would say one thing that I think people get stuck on is that UDL is coming up with one really cool authentic project and having everyone do it. But that's more old school project based learning which is fine but I think it takes away a lot of the choice. A big misunderstanding was that it's like the kids are only teaching themselves. That your presence as the educator is more you know much more passive and that's not true at all. You know it's not the completely you know everything is micromanaged control. You will sit. You will do this. You will do that. But I think some people went in the opposite direction and just completely took their hands off the handlebars and let kids teach themselves only and acted more as just like a manager who was collecting work. I think
that was also not helpful for kids because they need their teacher. They need the
guidance. They need the coaching. They need to understand what the expectation is. So
I think that was a pitfall of a little bit. It was that some people went to the other opposite
side of the spectrum where it was just you know completely independent work for the
kids and that's not what UDL is.

Lucy pointed directly to the misunderstanding of the role of choice in UDL as “what made it the
hardest to implement and was the biggest negative feedback I heard from teachers.” She had
much to say about the misconception.

This idea of choice to me falls under this helping kids be responsible for their learning.
And I think that when people are new to UDL they flip that by mistake and they start
thinking that if they're offering a lot of choice then they're being UDL but offering a lot
of choice doesn't necessarily mean that kids have the skills yet to be responsible for their
learning. So that's why when UDL came out a lot of teachers were talking about oh I
have all these choices but I wasn't sure that's necessarily correlating to kids being
responsible for their learning. And so I think that in the beginning people thought like I
was saying that it's all about choice in these options and so at the elementary level,
especially at the lower elementary level, people thought that it meant that you could no
longer say well actually no today this is the representation we're going to have. This
whole idea of multiple forms of representation. Right. And they were like well kids can't
know what form of representation to choose if they've never been taught some of the
forms of representation. And so I think at the beginning that was kind of this
misconception that you have to be 100% UDL all the time and if you talk to Ella that's
not true. Sometimes you have to write a big paper. Sorry, if that's not what your choice
is, but today you got to right a paper and you can have other choices within the writing of that five page paper but sometimes actually you do have to do what's assigned to you. And so I think when it first came out there was this belief that it was like that. I think that we do have some departments at older levels that swung that pendulum too far towards choice all the time. Even high school kids need guidance in how to make good choices in order to help their learning. So I didn't see that at the elementary school so much and probably that's just because it's really obvious that a second grader might not know what to choose.

While Don did not speak to teachers having confusion about the role of choice in UDL, he did speak to looking for examples of choice during his classroom observations. “I mean you get to see it you know through my many observations by my walkthroughs. If I don't see them meeting the kids needs or offering choices and things like that, you'd see it pretty glaringly from one class to another.” Given the misconception the staff had about choice, it raises a question around the impact Don had on teachers and the choices they gave students because of his expectation that he wanted to see choice in the classroom.

Theme 3: “there are sparks of brilliance.” While some themes from the five participant interviews can be categorically organized under a negative umbrella, other themes spoke to positive outcomes. All themes are useful to understanding the phenomena at play here so districts and schools can implement UDL successfully. What follows focuses on the positive outcomes from UDL, and as Ella justifiably expressed, “there are sparks of brilliance.”

Don, with over twenty years of experience as both a teacher and building level leader, was able to juxtapose UDL classrooms and those with a more traditional approach. As such, he spoke to the benefits of UDL.
I said before it meets their needs. It makes it really go to a higher level that they probably
didn't think they could before. I think there's a lot more believing in the kids. And I
think the belief is that you know no matter how difficult the child is we're going to come
up with a way to help this individual socially, emotionally, and academically.

“Believing in the kids” was echoed by Lucy who previously shared a story of a student that was
struggling in math but earned a 100% as she noted, “he got one hundred because someone said I
believe in you.” She went on to explain: “I think I've seen massive improvements like I said in
physical environments in just this whole approach to making sure that everybody has access to
you know the materials and everybody had access before except I would then put that bucket
here on the table for specific students.”

The “massive improvements” seen by Lucy were shared by her colleague Diane.

I can only speak to my class and I would say yes. Absolutely. Especially when I taught
juniors and seniors before. I was able to measure their growth because I was using the
SAT as a measure. I'm not waiting for them to take it but I was using it as my pre and my
posttest in my class. And that made a difference. And just reports from them after taking
my class. They were much more confident in their ELA skills. So I would say
absolutely.

Diane went on to explain how teachers were enjoying their jobs more due to UDL.

They get to see progress so much, not faster, but it's much more satisfying to see a
student who normally wouldn't have done well suddenly gets something because they
were able to go at it in their way. That's just so much more satisfying than you know
banging your head against the table trying to get them to finish a math problem—just
frustrating yourself, frustrating them, putting a bad taste in their mouth about learning. It just puts a much more positive spin on how we're spending our time.

Julie saw UDL as an approach that was more focused on the students.

It's more student based. You know it's not coming down on the kids. It should be if you've created the culture of coming out from them and you're just kind of walking around grabbing stuff and making points of it and turning your kids into co-teachers.

You know when somebody writes something and you say okay, I love those. I love the lead you just wrote. Go share that lead. Then the kids will jump in and start doing it and then they come and say oh Johnny you showed me your paper. I just did the same thing. Look at this, my lead, and my topic sentence and so that's one of those moments that's a good moment.

Overall, Julie thought students “feel it [UDL] empowering.” From a district perspective, Ella has access to individual school as well as district wide data for a number of years. Her view spoke directly to the positive outcomes due to UDL.

I mean student achievement is crazy. We are at an all-time high performance ever on record-ACT, SAT, AP. In our state there's eighteen hundred schools. Both of our elementary schools were put on the list of schools that significantly exceeded accountability targets for all subgroups. So you know that's a less than a 1% chance of that happening in both of our elementary schools. This is last year. So you’re at the end of year four. We had increased the achievement of our special education students from a growth score of twenty-nine to a growth score of seventy-nine. After four years, we've doubled the number of kids that are sitting in advanced coursework. So I mean the academic outcomes are just huge, huge, huge.
Don offered another perspective on the benefits and positive outcomes caused by educators who utilized the principles of UDL.

I think the UDL environment just sort of allows for more conversation, more students working with the teacher, working with their peers, lot of action, a lot of conversation, a lot of work on their own, you know independent work and in a small group. The teacher working, instead of in front of the whole class, you know working with small groups and I think the teachers get to know the children a little bit better because their conversations are deeper. They have more time to get to know and work with individuals or small groups. And, I sort of don't know how to describe it. It's just you walk in and these things happen. There's just more action and I think that kids like that. I mean kids I think kids today now need to be moving and going forward and talking and being silly and being like that. And it just seems it's much different than walking in class with kids and you know when I started kids used to be in rows.

Don believed teachers were also “more confident in how to reach kids” when utilizing UDL principles. In addition to benefiting student outcomes, teachers benefited as not only were they more confident but also, as both Don and Diane expressed, teachers were finding more satisfaction in their work.

Ella, passionately and convincingly, explained why schools and districts should implement UDL.

Just do it. Do it in your district. It's awesome. There’s no reason not to do it. It's federally endorsed. It's written into the Common Core Standards and I mean believing in any framework that's like we believe that students are not disabled. Curriculum is disabled. We believe that all students have a unique mix of strengths and weaknesses and
variability. We believe that teachers are amazing expert learners and can architect learning so that in an inclusive classroom all students, regardless of variability, can have those barriers removed for them. There is no way to go wrong with a framework that is so asset based and believes in the power of teachers and believes in the power of kids. There's just nothing else like it and is also standards based and again, we, year after year after year our achievement goes up. It’s public record. You can look it up- we're killing it through yes rigorous standards. I get to walk in classrooms and see not every day, not every time, not every person, but like there are like sparks of brilliance. It’s like okay I'm here for a reason at least.

**Theme 4: a pathway for a successful implementation.** All five participants have lived through multiple change initiatives in their careers. Some of these were unfunded state mandates while others were new math programs or other district initiatives. The perspectives offered here from their lived experience is insightful to understand best practices for rolling out UDL. All five experienced the beginning stages of the implementation through the current phase where it is fully implemented and an expectation to be part of the fabric of the work done in classrooms. It was a privilege to examine their stories and voices as there were multiple perspectives. Three of the participants were the receivers of the introduction of UDL as they were not part of the leadership team. Two of the participants were part of the leadership team implementing UDL. As such, their individual and collective voices shed light on what a school/district should do when introducing UDL.

Don, who as a building principal has led previous initiatives, recommended a bottom up approach to implementing UDL.
I'd say I would maybe at the beginning you know have a cohort of teachers. Maybe one at each grade level and really intensely have them and they want to do it. High quality teachers really getting quality training, really putting it out in their classroom, not say forcing it but let it just come naturally and have teachers go observe them and really then be the spokesperson for the school along with myself, along with Ella and then sort of roll it out that way and sort of build on its own which we've been successful with other initiatives.

Don’s recommendation, based on previous successful implementations, was very similar to Julie’s idea for a great rollout. With over 27 years as an educator, and seeing countless change, Julie’s thoughts were important.

Really working hard at each grade level with one person who is going to buy into it. You have the levels of people who are initiators and love to grab in and then it goes down to people who will follow you and then there's always the naysayer at the bottom who's going to be like oh God leave me alone. So find those people who you could work with and have a good relationship with the rest of their team and then really grassroots pull it together and make it less philosophical and meant less global. And actually have stuff built in and have people implement it and talk about it. And then as it gets rolled out you build in more people coming into the group. So it's you don't have to do it. This is something somebody is doing. Look what I have. We can all do this. It's something we already do. It has to be connected with a curriculum piece that we're already doing. And then it if you can roll it out in that manner then it's going to be a lot more effective.

“It’s going to be a lot more effective” was a promising statement for schools looking to implement UDL. Both a teacher and a building level leader with almost 60 years of education
experience combined shared a similar sentiment for how UDL should be implemented. Diane, similarly, thought the approach good practice. “…a lot of what we were doing with Universal Design was really teacher led grassroots and that was great”. However, she elaborated and cautioned that “We can only take that [grassroots] so far. Like one teacher and one classroom can only do so much for systemic change.” Diane recommended for systemic change that the introduction of UDL should be “system wide” and focus, not only on teachers, but on administrators as well. Her experience is illuminated below.

Another thing too was that I don't know how well building administrators understood Universal Design. I think they could probably define it but I don't know if they knew how to help their staff with it, how to give them good feedback, how do we evaluate them on it. So that was another thing and that again goes into the systemic thing where it wasn't a system wide thing. It was more targeted with the teachers and classroom instruction and not necessarily the big picture. That was huge.

Lucy also appreciated a grassroots-led initiative as she explained, “I always think that anything that’s teacher driven works better.” Lucy recommended “book studies” and collegial dialogue as a strategy to implement UDL.

I think that teachers get the most out of having time to talk to teachers. So having times when people have an opportunity to share here's what I did. So if it was like remove barriers like here's some things I tried to remove barriers in my class or here are some barriers I didn't even ever think of until I really sat down and reflected wow that actually is a barrier or here's what I do to get kids responsible for their own learning. I think that kind of communication is really good. And I do feel that's where teachers get the most value.
When reflecting on how Ella launched UDL, Lucy explained her opinion of the approach.

I think that Ella’s done a good job in getting teachers to try and help spread the word and choosing teachers carefully who are, and she's done a good job at this too, who are master teachers, respected by their peers, and teachers who can be heard. So we have some very good teachers with some very strong personalities and from the outset if you were to watch, you’re like that's interesting. That person isn't doing UDL trainings, but that teacher might be a really strong teacher and wonderful at what they do, but if their methods can't be heard by their colleagues then they're not the greatest ambassador for that new program. So I think that choosing teachers who are on board and there's teachers who say they're on board but then behind your back they're not on board. It's tricky right. Choosing those teachers where you're like this person actually really believes and so when I have criticism about UDL I will always say that it's the implementation of UDL. It's not UDL. It's not removing barriers. It's not helping kids learn how to be responsible for their own learning. It's not the multiple means of representation. It’s implementation being done in a way that isn't creating what we would hope.

Ella, who led the UDL initiative, offered her insight into what worked in her district.

I'm very big on Diffusion of Innovation theory. Which is you know we say hey we're going to implement UDL and like some people were like yes like we love it. We believe in it. This is what I believe about kids. I would love to do things differently. I love to have the autonomy to break away, but for you know every one of that there's this is going to pass. This is not what the best is for kids. Kids just need to sit and listen and be respectful and like giving them all those choices is not going to work. And so like you
know what you really have to do is to take those early adopters and really like celebrate them and elevate them as much as you can. I think that one of the things that I did that I think was smart in hindsight was we didn't require it as a part of Ed Eval. We really started coming down heavy until year five.

Ella’s, previous comments, of celebrating “early adopters” spoke to the other participants’ views that picking the right teachers and growing through a “grassroots approach” was both a sound and effective strategy. How did Ella grow it from the bottom up?

So, year one I taught a graduate course in the summer and it was basically like if you are interested in learning about this framework that is required by the Common Core Standards, and this is 2012, you know that our state framework required it. If you're interested come and take a graduate course with me. It will be awesome. And, twelve out of like 280 teachers were going to take it. So I was like I'm going to give those twelve people the best damn class they've ever had in like their whole entire life.

That first class served as a springboard which led to a grassroots launch of UDL.

Those twelve became my UDL rock stars. We stayed together-nobody left. It was essentially you're going to explore it and then you're going to help us create the district plan to scale it. So we had these 12 people. We got together. We took a graduate course together. The final exam, if you will, was you had to create a way to scale UDL in the district and introduce it to your colleagues. That’s pretty much all we did that first year.

In addition to the 12 initiators, Ella had a requirement for administrators. “One of my non-negotiables that year one was that administrators would try to model it.” Looking back on that year, Ella acknowledged it “wasn't perfect because we're learners too, but it's like make an effort to provide options and choices. Don't say what you're doing. Just model it.”
The grassroots effort led to “20 more teachers who took the course that summer” in year two.

So now I have like 32 people in the district out of 280 that are trained. That next summer 73 additional teachers took the class and then summer four 102 took it and like this is not paid. This is not required and it’s in July and August. So it became something that kind of got away from itself.

**Synthesis of Themes**

The purpose of this study was to understand how elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? The voices of the five participants illuminated, through sharing their lived experiences, the following four themes: (1) beware of othering, (2) prepare for barriers at every turn, and it is not just time, (3) “there are sparks of brilliance”, and (4) a pathway for a successful implementation. What do these four themes speak to collectively?

After a close and thorough analysis of interview transcripts, reviewing field notes and analytic memos, listening to recorded interviews countless times, two rounds of coding, and writing about the four themes for this study, the overarching message from the participants is a call for schools and districts to utilize UDL in their instructional practices. Their voices shed light on what barriers to anticipate and best practices for a successful implementation. All five participants spoke to the power of UDL’s principles that remove barriers for all students. As a result, the district saw amazing growth on standardized test scores for all students and “both elementary schools were put on the list of schools that significantly exceeded accountability targets for all subgroups.” While the quantifiable data is reason enough to see the benefits of UDL, qualitatively, the stories that unfolded in interviews recounted beautiful examples of students finding success in the classroom. While some of these successes were not measurable
on a test, anecdotally, teachers and administrators spoke to the higher levels of joy and engagement in learning for these students. They also cautioned about othering that can occur in classrooms that do not use UDL correctly or at all. However, when UDL was implemented correctly, students were not marginalized and did not stand out because of their label. As such, a true equity took form in the schools.

**Reflexivity**

Studying UDL and its impact via reading empirical studies, books, articles, and holding participant interviews, has impacted my positionality. The iterative and reflective process of conducting a study causes one to consider their assumptions and pause to understand multiple perspectives. Viewing practices, pedagogy, andragogy, and ideologies through various optics can confirm and challenge one’s beliefs and worldview. Both the confirmation and challenges serve to grow one as a student, researcher, practitioner, and change agent.

Prior to conducting this study, my worldview and positionality was shaped by my experiences as a student, teacher, and administrator. While these were important experiences and provided me with motivation to engage in a study to improve outcomes for all students, my view was parochial due to no experience in the field conducting research nor any time invested in reviewing empirical studies on UDL. Reflecting upon this study has confirmed my beliefs that there is a need in education to change from reactive and traditional approaches of teaching where a one-size-fits-all approach is the norm to proactive design solutions where the curriculum and schools are viewed as disabling and barriers are removed. Doing so moves students from the margins to the center. Instead of looking at disability, educators should see ability. My positionality has changed or softened when it comes to my biases around teachers. As a young student I had some unfortunate experiences with teachers that have colored my thinking.
However, through this study, I have come to see that the vast majority of teachers want what is best for students. Resistance or reluctance to an idea or change in practice is not due to an intent to do harm but rather comes from a place of misunderstanding about best practices. I will need to continue to revisit my positionality as the pain from my early years of schooling still run deep. This study has given me new focus and renewed energy to be an agent of change so all students are afforded equity in education. To achieve this goal, I will need to keep an open mind and be a scholar-practitioner.

Through this study, I hoped to gain insight into what participants see as best practices for implementing UDL, what potential barriers there are, and what, if any, effect UDL has on how students are treated because of either formal or informal labels. I hoped the study provided information as to how to best implement UDL and how labels play out in the classroom/school environment. The qualitative data, gleaned from semi-structured interviews, offers answers to my questions and a clear roadmap to implementing UDL in schools. I have answers to the how, but most importantly to the why behind the need to bring UDL to the forefront of conversations about what schools need now. The following chapter revisits the themes to examine implications for the field.
CHAPTER 5 – IMPLICATIONS

To conclude, it is important to start at the beginning. The hope parents have for their children and their future when they register them for kindergarten is immense. Now, who would be comfortable standing in front of a room full of these same parents to let them know that on average almost 17% of them will never graduate or worse yet if you have a student with a disability about 35% of these students will not receive a diploma (NAEP, 2015 Public High School Graduation Rates)? It is hard to think of any sane person who would, however, the data in the United States for graduation rates demonstrates this cold reality—we are not reaching all students. The purpose of this interpretative phenomenological analysis study was to explore the impact of a UDL implementation on students, teachers, and administrators in an elementary school. Why? UDL’s framework provides multiple means of engagement, expression, and representation with curriculum, assessments, and materials and has been shown to meet the needs of all learners (Al-Azawei et al., 2016; Meyer et al., 2014). Hearing the voices of teachers and administrators could contribute to the field for scholars and practitioners alike to provide insights into a UDL implementation to address the public problem of high percentages of our students not succeeding.

The overarching research question for this study was: How do elementary teachers and administrators who have gone through a UDL implementation make sense of their experience? After analyzing data from five semi structured interviews, the following four themes emerged:

Theme 1: Beware of Othering.
Theme 2: Prepare for Barriers at Every Turn, and it is Not Just Time.
Theme 3: “There are Sparks of Brilliance”.
Theme 4: A Pathway for a Successful Implementation.
What follows is a brief discussion of major findings, a synthesis of the four themes in relation to first the theoretical framework and then the scholarly literature, study limitations, and finally, logical next steps.

**Discussion of Major Findings**

It was a privilege to sit with each of the five participants. They all opened their hearts and minds for the benefit of this study. Through the use of semi-structured interviews, the lived experiences of educators emerged to tell a story. To better understand their stories and make sense of how the participants were making sense of their experience, two rounds of coding were used to analyze the data. After listening and reading through the transcripts multiple times, 689 in vivo codes began to reveal important words and phrases. A second round of pattern coding further refined the data to produce this study's four major themes. Two major findings developed from these themes:

1. UDL improves student outcomes and prevents the marginalization of students with labels.

2. Implementation should be carefully planned.

**UDL improves student outcomes and prevents the marginalization of students with labels.** As discussed in chapter four, the five participants in the study shared stories and examples of what teaching and learning was like prior to UDL being implemented in the district. Their voices illuminated that students with labels or those struggling with academics or problem behaviors often stood out in non UDL environments. As some participants remarked this could lead to a negative “self-fulfilling prophecy.” Both teachers and peers would sometimes “other” the students that stood out. Thus lower expectations led to lower results. Students could even have lower self-efficacy because of the negative attention and expectations and even refuse
services as mentioned earlier in the study. When juxtaposed with the implementation of UDL in the district, students did not stand out as much or at all as the teachers provided supports to all students not just those requiring accommodations on an IEP or a Section 504 plan. Participants talked about students making great academic gains, believing in themselves, and finding joy in learning. Students who might not ever work together were in groups learning side by side with their peers. When supports were provided to all, students had a level playing field and the focus could be on ability rather than disability. As Ella explained, UDL dramatically improved outcomes. “Our elementary schools were put on the list of schools that significantly exceeded accountability targets for all subgroups.”

**Implementation should be carefully planned.** While this is an obvious statement, the participants in this study shed light on what helped to make the implementation in this district successful. Their grassroots approach versus a top down mandate allowed the implementation to accelerate and sustain growth as teachers were acting as informal leaders. They would teach, encourage, and promote the use of UDL with their colleagues. The effort started in the summer of year one’s implementation when 12 teachers took a summer course taught by Ella. They did this on their own time and unpaid. These original 12 teachers did not know it at the time but their efforts would continue to grow over the next few years. During the second summer, 20 more teachers took the course. Summer three saw 73 new teachers in the course and by summer four over 100 teachers took the course. Peers leading peers built and sustained the district’s goal to have UDL implemented. While their efforts were successful, they were not without some problems. Participants spoke to the misconception in the beginning of the implementation about what UDL is and is not. The misconceptions created situations where teachers were not giving appropriate choices to students. As mentioned earlier, these choices lowered the rigor of
expectations and student work for some. These misconceptions could have been created by the very well-intentioned teachers who were leading the grassroots effort.

Even with the successful implementation, Ella admitted not all teachers are on board with UDL. “I have a very small amount you know maybe 10-15% at most who are still kind of waiting me out.” Districts considering implementation need to carefully plan how to mobilize teachers to lead, share only accurate information about the principles of UDL, and plan for resistance from staff in addition to the common barriers of any implementation: time and resources.

Explication of the Theoretical Framework Connection to Themes

Labeling theory posits that labels playout in such a way that it influences how society and individuals treat others as well as how one views their own ability and circumstance (Shifrer, 2013). Labeling theory has been studied widely in the field of sociology and has praxis for the educational field (Thomas, 1997). Two widely known psychological phenomena are the Pygmalion and Golem effect. As a review from their earlier explanation in the study, they are defined as follows: The Pygmalion Effect relates to positive increases in performance when expectations are higher. The opposite is the Golem Effect where lower expectations lead to lower performance (Babad, 1977). What follows is an explanation of what two of the four themes reveal about labeling theory.

Two themes from this study that closely parallel labeling theory are: beware of othering and “there are sparks of brilliance”. The participants spoke to how students with labels stood out more in non UDL environments because supports and materials were only provided for students with labels. Thus, students and teachers were aware of these differences and as Ella remarked there was a “self-fulfilling prophecy” for these students. So, similar to the Golem Effect,
participants agreed that labels negatively affected students. However, while labels are not going away in the near future as they are a requirement under Section 504 and the Individuals with Disabilities Education Act (IDEA), this study revealed that UDL environments serve to dramatically decrease the chance that students standout and draw negative attention. As Lucy remarked “you would have no idea who is on an IEP.” UDL benefits all students, but the power behind its ability to change teachers’ beliefs and expectations for all students is remarkable. Don explained, “It makes it really go to a higher level that they probably didn't think they could before. I think there's a lot more believing in the kids.”

Peer relationships are an important component for school success. This study showed UDL environments can prevent an othering of students with labels not only from teachers but from peers as well. Student self-efficacy is also strong in a UDL environment. This was demonstrated by Diane’s remark. “In the high school I had a student who refused services because she didn't want the ELL teacher to come in and work with her and sit with her. She did not want to be identified as having an ELL label.”

The district, by successfully implementing UDL, created learning environments where students stood out less and access to materials and learning was provided to all students. Like labeling theory posits, labels can shape how people treat others and how individuals see themselves (Shifrer, 2013). Unfortunately, this often leads to negative outcomes. Lucy explained that when UDL is not implemented well or at all students are treated negatively. “It’s more noticeable. Right. It’s more noticeable that that kid needs manipulatives.” As mentioned earlier, this leads to students being othered. Fortunately, the district in this study put students first with its implementation of UDL. It proved to improve treatment of students by teachers and peers that in more traditional teaching environments would have stood out due to their label.
Expectations rose, relationships improved, and student self-efficacy increased. What else happened? Student achievement outcomes dramatically increased. When discussing UDL, Ella did not hesitate to explain why schools and districts should utilize UDL. She talked about the district’s recent high performance on ACTs, SATs, and AP exams. In addition, both elementary schools significantly exceeded the accountability targets for all subgroups. Most impressive is that the district increased the growth score of students in special education from 29 to 79.

“...year after year after year our achievement goes up. It’s public record. You can look it up—we're killing it…”

Ultimately, labeling theory was a great choice to frame this study to see to what extent a labeling effect manifests itself in the classroom. The voices of participants spoke loudly and clearly about the negative impact of labels on students. Their voices also showed that UDL lowers and possibly eliminates the negative impact of labels.

**Explication of the Literature’s Connection to Themes**

The perspective of the five participants illuminated the following themes: (1) beware of othering, (2) prepare for barriers at every turn, and it is not just time, (3) “there are sparks of brilliance”, and (4) a pathway for a successful implementation. Their collective voices added to what is known about UDL in the literature as shown below.

**Theme 1: beware of othering.** The literature reviewed for this study showed that a marginalization of students or othering occurs in some school settings. UDL creates an inclusive environment as supports are provided to all students. Shogren et al. (2015) found that pulling students out of class for instruction and services was viewed as a negative by both students with and without disabilities as it limited access to the curriculum and opportunities to socialize and form friendships. Thus, academic and social emotional well-being was impacted. The
participants in this study shared a similar impact can occur when UDL is not implemented or implemented well as treatment by teachers and peers creates an othering in these contexts. The literature revealed that even in inclusive environments there can be a belief that some students do not belong and are seen as less abled (Lowrey et al., 2017). This study did not find evidence of this mindset in the district’s UDL environment.

**Theme 2: prepare for barriers at every turn, and it is not just time.** The scholarly literature for this study found a number of barriers to successful implementation. These included school leadership, teacher turnover, passivity, and resistance to change (Spelman & Rohlwing, 2013). Other barriers in the literature that are major themes were principals unwilling to share power/decision making and those intentionally blocking collaboration resulting in teacher leaders not contributing to school improvement efforts (Taylor et al., 2011). The participants in this study offered insight into the barriers experienced in their district. Some of the barriers mirror the literature and others offer new considerations not seen in the literature review. Similar to the literature, the majority of participants saw some teachers as passive and resistant. Diane spoke directly to resistance. “Whereas a majority of people were very resistant to it because to them it was another initiative and to them it was very much well if it isn't broke don't fix it.” While teacher turnover did not come up as a barrier in participant interviews, it was not clear how the district addressed teaching new teachers about UDL. One participant said “I don’t know” when asked how her mentee would be trained. Not having a formalized approach could be a barrier to successful implementation for the district. The participants overwhelmingly thought school and district leadership was very supportive of the implementation. While this contradicts some of the literature there were flares of potential barriers from the leadership. Julie remarked, “We often joke that we we're not UDL. Like the stuff that we're asked to do is not very UDL because the
structure of the administration is bringing it down on us. So, the joke is well would they want us
to do this for our kids? But they're not letting us do this for our own professional development,
for our own teacher practice. There's kind of like a hypocrisy in that.” A barrier not seen in the
literature but found to be one in this district is the misconception of what UDL is. Ultimately,
the misconception caused much confusion about the role of choice in assignments. Some
teachers provided students with the wrong type of choices thus lowering expectations and the
rigor of student work.

Theme 3: “there are sparks of brilliance”. The literature reviewed for this study
supported many examples of the positive benefits UDL has as multiple studies showed improved
outcomes for students (Al-Azawei et al., 2016; Coyne et al., 2017; Coyne et al., 2012; Davies et
al., 2013; Kennedy et al., 2014; King-Sears et al., 2015; Kortering et al., 2008; Lowrey et al.,
2017; Marino et al., 2014; Rappolt-Schlichtmann et al., 2013; Webb & Hoover, 2015). This
study, similarly, showed improved outcomes for students. Ella, the district leader, shared, “We
increased the achievement of our special education students from a growth score of twenty nine
to a growth score of seventy nine. After four years we’ve doubled the number of kids that are
sitting in advanced coursework…the academic outcomes are just huge.” Some notable insights
were gleaned from hearing the voices and experiences of the participants that were not seen
specifically in the literature reviewed for this study. Don believed teachers were “more
confident in how to reach kids” when utilizing UDL principles. In addition to benefiting student
outcomes, teachers benefit as not only are they more confident but also, as both Don and Diane
expressed, teachers are finding more satisfaction in their work. In fact, what was most
interesting and exciting to hear was how UDL brought more joy into teaching and learning.
**Theme 4: a pathway for a successful implementation.** The major takeaways from the review of the literature for UDL implementation revolves around training. Specifically, multiple studies showed even small amounts of training had a positive effect (Davies et al., 2013; Katz, 2015; Marino, 2009). For example, research in 2013 showed five hours of training had positive effects (Davies et al., 2013). This can be misleading for districts considering implementing UDL as training alone will not suffice as the literature revealed, in addition to training, a number of other variables are at play. Collaboration is a key factor to have a successful implementation. Fairman and Mackenzie (2015) found that once collaborative groups are created and teachers engage together in frequent work, create good relationships, and trust one another, then these groups can work towards school improvement efforts. The participants in this study added to what is known in the literature by revealing that the key to their successful implementation was a bottom up approach, which was referred to as a “grassroots” effort by one of the participants. In addition, instead of agreeing with the literature that a little amount of training has a positive impact, Don explained that it can take two to three years for a teacher to feel confident in utilizing the UDL principles. Another important takeaway from the study is that implementation efforts should focus on both teachers and administrators to ensure a successful implementation. The literature did speak to the need of administrators being involved for a successful implementation, however, this study showed that it is important to train administrators thoroughly so they know the principles of UDL as well as the teachers do.

**Limitations**

One of the major limitations of this study was the absent voice of students. While participants offered perspectives on teaching and learning and shed light on some student experiences, not hearing from the students limited what could be learned. Another drawback
was the use of pseudonyms for the district and participants. It was important to protect identities to secure confidentiality and not to do harm to any of the participants, however, both the name of the district and one of the participants would have added gravitas to the study as the district is well known and the participant is internationally renowned. Revealing their identities would have strengthened the data that was presented.

**Next Projects**

As this study demonstrated that labeling inflicts harm when UDL is not implemented correctly and when teaching is done in non-UDL contexts, my next level of work will be to continue to study the issue with a different paradigm. Instead of interpretivism, critical-ideological will be the lens as the goal will be to affect change for those in the margins. This paradigm will allow me to state at the beginning of participant interviews that I am looking to change the structure and systems in the school to benefit the participants. In this case the participants would be students as their voices were missing from this study. It would be important to interview participants in both non UDL and UDL contexts to juxtapose the lived experiences of the students. Results of the study would then be shared with the school district where the work was conducted to motivate and move decision makers to change practices that would work toward improving the educational experience for all of their students. Publishing and sharing the study at conferences would make the time, energy, and revelations of the participants scalable so the risk they took to be vulnerable not only benefits them, but others as well.

The marginalization of students in non UDL environments and spaces where UDL is not being implemented with fidelity needs further exploration. As this study focused on a small participant pool in a suburban school district, additional research needs to explore this theme in a
variety of contexts. Qualitative studies also need to explore the voices of educators and students in both rural and urban areas. Studies should also be conducted in a variety of socioeconomic and cultural contexts. Without this work, not all groups will have a chance to tell their story. Not hearing the stories of all identities (race, gender, identity, ability, disability, etc.) limits what is known. By examining various lived experiences, researchers can make recommendations to practitioners to shape pedagogical practices to prevent the marginalization of students.

This study found a dichotomy between positive (cheerleaders of UDL) and negative (reluctant teachers) mindsets. How this plays out in UDL implementations shows that those with a negative mindset may not implement UDL with fidelity, believe in its tenets, or see the need to use it with all students. Their resistance/reluctance limits increases in student learning and engagement. The marginalization of various populations also increases. As such, continued studies should look at how these mindsets play out and if consistent with this project’s findings, how does a school successfully address negative mindsets so that UDL can be successfully implemented to benefit all students? Examining how to address the barrier of teachers preventing an implementation is important not only for the success of a UDL implementation but all implementations.

Admittedly there are a limited number of quantitative UDL Studies (Al-Azawei et al., 2016; McDonnell et al., 2001; Spooner et al., 2007). Therefore, another logical next step is to add to the canon by conducting a quantitative study with tightly controlled variables. Why? Quantitative data along with qualitative studies would be a strong argument for skeptics of qualitative studies who may feel paradigms other than positivism influence the research and make it less objective. As such, studies with survey data and pre and post test scores, conducted under tightly controlled conditions, would demonstrate the success of UDL in a format more
digestible to reluctant decision makers. For example, UDL training could be provided to a group of teachers prior to teaching a unit. Results of post-test data from the unit would be compared to their counterparts that did not receive the training. The data should be broken down by various subgroups to fully understand the benefits of UDL. Ultimately, more studies strengthen the case for UDL.

**Immediate Application**

Scholar-practitioners, because of their pursuit of knowledge and pragmatic application of research, are able to solve problems that are germane to their particular field of study and create opportunities and environments where all students are able to self-advocate and drive their own learning (Jenlink, 2005). In order to transform from a professional in the field to true scholar-practitioner one needs to continually reflect and identify what motivates and how to bridge the gap between research and the field (Nganga, 2011). This study was both thoughtful and useful research. As such, it will have a direct impact on solving and improving educational outcomes (Snow, 2014). Below are a few plans to make an immediate impact.

Preservice teacher training programs cover a wide variety of methods classes and requirements that lead to certification. Yet, UDL is not ubiquitously included in these programs nor in the majority of preservice programs (Scott et al., 2017). This study will be leveraged on two fronts. One will involve more steps and take longer to accomplish as it involves policy change at the state level. The policy solution is explained in detail in the next section. However, a second front, and one that will have an immediate impact is my work as an adjunct professor with teachers seeking a master’s degree. While the teachers in the master’s program do not take a class designed specifically around UDL, the classes I teach on assessment and multiple intelligences will include lessons and assignments about UDL. In addition, I will model UDL
throughout the course via my teaching. Students will leave the class ready and prepared to implement and continue to explore UDL in their own contexts. While this is not a sweeping change, each person can help their students and cheerlead UDL similarly to the teachers in this study.

As an assistant principal, the study and its lessons will serve my district, school, families, and students well. There are many opportunities to leverage this work. From large staff presentations to conversations with teachers during goal setting meetings, conversations about students, and feedback after observations, coaching and teaching about UDL can be the fabric of my work on a daily basis. Just last week a teacher shared that a student was having disruptive and inappropriate problem behaviors in the classroom. These behaviors seemed to flare during writing. While the student had good ideas, putting pencil to paper was a struggle. In traditional classrooms where choice in expressing your learning is not a feature, this student would have continued to struggle with a one size fits all approach to teaching and learning. However, as the goal of the lesson was for students to create a story rather than use a pencil to show you can form letters correctly, I suggested that the teacher offer the student options to show he knows how to create a story with a beginning, middle, and end. These options were both low and high-tech. He could choose the type of writing instrument and paper, dictate it to the teacher, type it on a Chromebook, or use speech to text software. The teacher came to see me the next day and expressed that the student was like a different kid. He chose to type his work and the usual problem behaviors were not there. I was not surprised as UDL works. Teacher-by-teacher conversations and large group presentations will continue to help spread the message about UDL and increase its use.
As a UDL expert, I will move beyond my local context and role as an assistant principal and adjunct professor, by publishing articles in education magazines and presenting at conferences which will help to reach a larger audience. While both of these take longer as articles need to be reviewed and chosen for publication, presentations approved, and the frequency of both are much lower than the daily impact I can make in my local context, one article or presentation can reach more people than I might in an entire year of work at my school. As such, my expertise can quickly spread the positive impact of UDL.

**Implications for Policy**

As reviewed earlier, the achievement gap in our country is still a problem facing schools today (Wagner, 2014). This “problem” is not limited to schools but also lands at the intersection of the schoolhouse door and the public domain as the implications of students not graduating or being unprepared for life becomes a public problem when it is clearly tied to increased rates of unemployment (Bureau of Labor Statistics, 2012). While the Every Student Succeeds Act (ESSA) is meant to address this gap, it does not do enough (Sharp, 2016).

ESSA aims to create equal opportunities for all students, however, there is much room for improvement. As mentioned earlier, the National Assessment of Educational Progress (NAEP) data demonstrates only 40% of fourth graders performed at or above the proficient level in mathematics and 36% of fourth graders performed at or above the proficient level in reading on the 2015 Nation’s Report Card (NAEP, 2015 reading; NAEP, 2015 mathematics). The data does not look good at the high school level either as recent data showed the United States is only graduating 83.2% of its public high school students (NAEP, 2015 Public High School Graduation Rates). In Connecticut, where issues of educational equity led to the lawsuit of Sheff v. O’Neill (1989) there remains a large achievement gap as an urban area like Bridgeport
graduated just 74.5% of students compared to the suburban area of Wilton’s 98% graduation rate (Rebell, & Hughes, 1996; Zahn, 2018).

Access to a quality education is fundamental to ensuring educational equity. Without this foundation, those who do not receive a good education have trouble finding employment (Alexander, 2012). National unemployment rates for those without a diploma were 12.4% compared to 8.3% for those that graduated high school (Bureau of Labor Statistics, 2012). The evidence demonstrates a need for Connecticut to consider policy alternatives for ESSA to actualize its goal.

**Root Causes of the Problem**

As evidenced above, the achievement gap is a major problem that continues to require government intervention. ESSA aims to create equal opportunity for all students (Sharp, 2016). However, ESSA and its predecessors, No Child Left Behind, and the Elementary and Secondary Education Act of 1965 (ESEA), which goes all the way back to the Presidency of Lyndon Johnson, have failed to effectively address equity and the achievement gap (NAEP, 2015 Public High School Graduation Rates).

A lack of sound instructional pedagogy is a major contributor to the achievement gap. Research has found that those with significant disabilities and students with exceptional abilities may find it difficult to have their needs met in the classroom (Browder et al., 2005; Spooner, et al., 2007). As such, not having access to the general education curriculum and having one’s needs met in the classroom directly impacts how one performs in school and one’s chances of graduating. ESSA’s provisions of UDL are a step in the right direction to help close the gap as UDL shows improved outcomes for all students (Al-Azawei et al., 2016; Coyne et al., 2017). However, ESSA does not go far enough.
The current provisions for UDL in ESSA suggest that schools use to the “extent practicable” the principles of UDL and incorporate the principles of UDL within literacy instruction (CAST, 2016). Ultimately, the ambiguous language, lack of specificity, and parochial lens of only focusing on assessment and literacy, needs amending. The following policy alternatives, which are focused on regulation and education, are for Connecticut’s consideration to improve teacher pedagogy to help close their achievement gap (Kraft & Furlong, 2012).

Connecticut could mandate UDL to be a core methodology class in teacher preparation programs. This mandate is within Connecticut’s control as the provision of higher education falls under the states (Rippner, 2016). To bring UDL to scale at a faster pace, training preservice teachers while districts train current teachers ensures UDL becomes common practice sooner. As UDL meets the needs of all learners, beginning teachers can start their careers with tried and proven pedagogical skills to help ALL their students achieve ensuring educational equity (Al-Azawei et al., 2016; Meyer et al., 2014). As teacher preparation programs are training the teachers, districts do not have to take on the burden to train all teachers. Teachers entering the field will come prepared with the skills needed to work with students from a multitude of academic, social/emotional, cultural, socioeconomic, and religious backgrounds. As such, teachers will help close the gap no matter where they teach. A drawback is that higher education institutions might balk as they have experienced a multitude of state regulations over the years in Connecticut, and teacher unions might also raise their voices in protest making political feasibility a challenge (Dichele, 2017; Thomas, 2017). However, from an efficiency and technical perspective, the cost to the state is minimal as
the higher education institutions would be implementing the coursework yet the payoff is large as new teachers entering the field will be prepared to reach all learners.

Connecticut could also leverage its six Regional Educational Service Centers (RESCs) to support districts in their efforts to implement UDL. The centers already serve the purpose of supporting districts within each of the six service centers. With the centers training UDL implementation teams from each school district, fidelity of learning and implementation increases and the burden on districts decreases as they do not have to develop the training. In addition, because all districts are trained, all students benefit making this an equitable change. Downsides are that there are only six service centers serving the entire state, so training may take time. The service centers may also have to forego other plans and programming in lieu of the policy alternative. For districts, sending teachers to be trained costs money for the training as well as for substitute teachers who need to be hired while teachers are away from students. However, the time commitment does not need to be immense as research showed five hours of training had positive effects making this option efficient and technically feasible as the centers are already set up to train and support schools at a low cost (Davies et al., 2013). Political feasibility is moderately strong as the Connecticut legislature created the centers to provide support to districts.

Another possible policy change is to modify the curriculum class in the administrative 092 certification program to include aspects of UDL and how it impacts curriculum. This would be a relatively minor adjustment for the administrator preparation programs, yet this change has a potentially big payoff for districts from an equity standpoint without passing a large cost to taxpayers. It is not enough to only train teachers. Without direction and support from leadership, fidelity of implementation will be low as the principal has considerable influence as
the promoter and organizer for creating the structures where teachers lead both formally and informally to improve their schools (Raelin, 2011; Sales et al., 2017). While higher education institutions may resist the change, the cost and amount of work is minimal making the technical and political feasibility reasonably attainable (Dichele, 2017).

A final policy consideration would be to require districts to have UDL in their teacher evaluation plans as a standard upon which teachers are evaluated during observations. This should only be implemented after schools/districts and teacher preparation program have had enough time to implement UDL into programing. As utilizing the principles of UDL is sound practice and creates classrooms where all students can learn, having it as part of an evaluation tool would allow teachers to receive feedback on their practice to ensure all learners are able to access the curriculum (McGhie-Richmond & Sung, 2013). While this is a low cost and relatively easy to implement change that can potentially produce big results as it ensures equitable access to the curriculum, teacher unions will most likely resist any change to the teacher evaluation system which could make it tough to pass politically (Thomas, 2017).

The data on the achievement gap and its implications for employment are troubling. As such, it is a cause for concern for not only our schools but our country. The seriousness of the problem rises to the level of a public problem that requires intervention from our government in the form of policy formulation (Ewell, 2018). If Connecticut can add regulations that require UDL as part of preservice teacher training, administrator certification programs, and teacher evaluation as well as provide training to schools/districts from Connecticut’s six resource centers then all students will have a greater chance of having their needs met in our schools. Doing so will help to close the achievement gap.
Conclusion

The literature review conducted for this dissertation along with the interpretive phenomenological analysis study that heard the voices of five educators demonstrated important conclusions for the field of education. When UDL is implemented with fidelity, it is a benefit to all students. It improves outcomes for both academics and social-emotional wellbeing. Joy increases in teaching and learning as students are not marginalized, achievement increases, and teachers find a renewed satisfaction in their positions. Ultimately, UDL is an equitable solution to the many inequities in our schools today.
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U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Public High
School Graduation Rates.

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading Assessment.


Appendix A: Formal Proposal Letter to Dr. Ella

Dear Dr. Ella,

Thank you for responding on Twitter to let me know your school district is a “huge UDL district” and I should send you information regarding my intended study. I currently wear two hats. I am an assistant principal of an elementary school in Connecticut and a doctoral student at Northeastern University (NEU). I successfully defended my doctoral thesis proposal on December 10, 2018 to study UDL in elementary schools. The purpose of this letter is to formally request permission to conduct research in your district.

About four years ago I participated in a week-long training at Harvard where I learned much about UDL. Since that training, UDL has been a passion of mine as I see the tremendous benefit it provides for all students. My district has yet to formally implement UDL, however, in the near future we will most likely begin to implement it across our four schools.

The proposed study will seek to understand teacher and administrator perspectives of UDL in elementary education. I want to understand best practices for implementing UDL, roadblocks to avoid, the benefit it provides for all students, and how inclusive practices impact both special and general education students.

My plan for the study is to hold individual interviews with 4-6 teachers and 2 administrators. I would like to interview teachers from a variety of grades K-5 and 1 building level elementary administrator and 1 administrator from central office. All participants should have at least two years of experience with UDL. Each semi-structured interview will be about 45 min. I believe 1-2 rounds of interviews will suffice for adequate data collection. To make the participants feel comfortable, they can choose the location of the interview, likely offsite to provide confidentiality. No interviews will take place during normal school hours. An interview protocol will be followed to ensure participants are fully informed about the study and consent to being recorded. In addition, participants will be told if they feel uncomfortable and want to stop they can do so at any time. In addition to the recording, participants will be told that notes and jottings may be taken as additional forms of data. I will give all participants in this study a copy of the transcripts following transcription so that they can make sure they are comfortable with their responses and that the transcripts accurately reflect their experiences. Finally, when I have preliminary findings I will provide a copy for member review. Pseudonyms will be used throughout the research to ensure confidentiality.

Through this study, I hope to provide information to both scholars and practitioners on the benefits and best practices of UDL. With this knowledge, educators can possibly improve student outcomes and a call can be made for teacher preparation programs to incorporate UDL in their preservice courses.

Also included in this communication is my IRB application for Northeastern University in case you need more specifics. Should you have any questions, please call me at 860-712-9073 or reach out via email at cross.je@husky.neu.edu only. You can also contact Dr. Clemons, the chairperson of my committee at Northeastern University, at k.clemons@northeastern.edu.
Thank you for your time and consideration.

Best,

Jeremy Cross
Doctoral Candidate 2019, College of Professional Studies
Northeastern University, Boston, MA
Appendix B: Invitation to Participate in the Study

Dear Teachers and Administrators,

I am an assistant principal of an elementary school in Connecticut and a doctoral student at Northeastern University (NEU). About four years ago I participated in a week-long training at Harvard where I learned much about UDL. Since that training, UDL has been a passion of mine as I see the tremendous benefit it provides for all students. As such, UDL is the focus of my dissertation.

I have received permission from Dr. Ella to invite you to participate in my research. The proposed study will seek to understand teacher and administrator perspectives of UDL in elementary education. In particular, I want to understand best practices for implementing UDL, roadblocks to avoid, the benefit it provides for all students, and how inclusive practices impact both special and general education students.

Participants in the study should have at least two years of experience with UDL. Each participant will be interviewed for about 45 minutes. A follow-up interview may be necessary if more data is needed. All interviews will be conducted at a time and place that is convenient for the participants. No interviews will take place during school hours. All responses are confidential. To help maintain confidentiality, pseudonyms will be used.

Through this study, I hope to provide information to both scholars and practitioners on the benefits and best practices of UDL. With this knowledge, educators can possibly improve student outcomes and a call can be made for teacher preparation programs to incorporate UDL in their preservice courses.

Please contact me at cross.je@husky.neu.edu if you are interested in participating in this study. Thank you for your time and consideration.

Best,

Jeremy Cross
Doctoral Candidate 2019, College of Professional Studies
Northeastern University, Boston, MA
Appendix C: Informed Consent to Interview Participants

<table>
<thead>
<tr>
<th>Name of Investigator(s): Principal Investigator, Dr. Kristal Clemons; Jeremy Cross, student researcher.</th>
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<tr>
<td>Title of Project: Universal Design for Learning: Teacher and Administrator Perspectives in Elementary Education</td>
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### Informed Consent to Participate in a Research Study

We are inviting you to take part in a research study. This form will tell you about the study, but the researcher will explain it to you first. You may ask this person any questions that you have. When you are ready to make a decision, you may tell the researcher if you want to participate or not. You do not have to participate if you do not want to. If you decide to participate, the researcher will ask you to sign this statement and will give you a copy to keep.

### Why am I being asked to take part in this research study?

We are asking you to be in this study because you have experience with Universal Design for Learning.

### Why is this research study being done?

The proposed study will seek to understand teacher and administrator perspectives of UDL in elementary education. In particular, I want to understand best practices for implementing UDL, roadblocks to avoid, the benefit it provides for all students, and how inclusive practices impacts both special and general education students.

### What will I be asked to do?

If you decide to take part in this part of the study, we will ask you to participate in 1-2 interviews. The interviews will be no more than 45 minutes. The second interview will be utilized if more information is needed for data collection.

### Where will this take place and how much of my time will it take?

The interview will be held at a location that is convenient for you, offsite to ensure confidentiality. The interview can be in person or done via video conferencing. The interview will be no more than 45 minutes.

### Will there be any risk or discomfort to me?

There are no foreseeable risks or discomfort for you.

### Will I benefit by being in this research?

There will be no direct benefit to you for taking part in the study.
## Who will see the information about me?

Your part in this study will be confidential. Only the researchers on this study will see the information about you. No reports or publications will use information that can identify you in any way or any individual as being of this project.

Any reporting of your experiences will use a pseudonym. No other identifying information will be provided in the research report. You will also have an opportunity to review the transcripts of your interview to ensure accuracy. Electronic data will be stored on my personal computer and password protected. In addition to my computer, any handwritten materials, hard copies of interviews and data, and any other study information will be secured in my home. Pseudonyms will be used to protect participants and maintain confidentiality. Once interviews have been transcribed by Rev.com and approved by the primary researcher, audiotapes will be destroyed. Finally, after conferral of my doctoral degree and an additional three years, during which time an authority may request verification of my research, has elapsed, all transcripts and recordings associated with this research will be destroyed.

In rare instances, authorized people may request to see research information about you and other people in this study. This is done only to be sure that the research is done properly. We would only permit people who are authorized by organizations such as the Northeastern University Institutional Review Board to see this information.

## What will happen if I suffer any harm from this research?

No research-related injuries are possible from this research.

## Can I stop my participation in this study?

Your participation in this research is completely voluntary. You do not have to participate if you do not want to and you can refuse to answer any question. Even if you begin the study, you may quit at any time. If you do not participate or if you decide to quit, you will not lose any rights, benefits, or services that you would otherwise have as an employee.

## Who can I contact if I have questions or problems?

If you have any questions about this study, please feel free to contact Jeremy Cross, the person mainly responsible for the research, at cross.je@husky.neu.edu. You can also contact Dr. Kristal Clemons, the Principal Investigator, at k.clemons@northeastern.edu.

## Who can I contact about my rights as a participant?

If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, Mail Stop: 560-177, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: n.regina@neu.edu. You may call anonymously if you wish.

## Will I be paid for my participation?

You will not be paid for your participation.
### Will it cost me anything to participate?
There is no cost to you to participate.

### Is there anything else I need to know?
You must be at least 18 years old to participate in this research.

### I agree to take part in this research.

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<th>Signature of person agreeing to take part</th>
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Appendix D: Teacher Interview Protocol

Interview Protocol Form

Institution: ABC School (pseudonym)

Interviewee: Name (pseudonym), Position

Interviewer: Jeremy Cross, Assistant Principal

RESEARCH QUESTION: How do elementary teachers and administrators, who have gone through a UDL implementation, make sense of their experience?

Part I:

Introductory Session Objectives (5-7 minutes): Build rapport, describe the study, answer any questions (under typical circumstances an informed consent form would be reviewed and signed here).

Introductory Protocol

Thank you for meeting with me, NAME. I know you are very busy, so I greatly appreciate your time and willingness to sit for an interview with me. As you have a great deal of experience with UDL, I thought you would be a great person to speak with to gain insight into teachers’ perspectives. My research project focuses on the experience of both teachers and administrators with an implementation of UDL. Through this study, I hope to gain insight into what you see as best practices for implementing UDL, what potential barriers there are, and what, if any, effect UDL has on how students are treated because of either formal or informal labels. I am hoping this study provides information as to how to best implement UDL and how labels play out in the classroom/school environment.

Your perspective is very important to me. As such, I would like to record the interview today to ensure I accurately capture what you share. Do you give your consent for me to record? [If yes, thank the participant and turn on the recording equipment]. In addition to the recording, I make take down notes as well. However, everything you share will remain confidential. In fact, I will use a pseudonym for both the school’s name and your name when I quote from the transcript. I will be the only person to have access to the recording of the interview. And, after the interview is transcribed, I will destroy the recording. To summarize: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) I do not intend to inflict any harm. Do you have any questions about the interview process or how your data will be used?
Again, thank you for your time. I have a list of questions that should take approximately 45 minutes to answer. I will monitor the time to ensure you have ample time to answer each question. Before we begin, do you have any questions for me?

**Part II:** Interviewee Background (5-10 minutes)

Objective: To establish rapport and obtain the story of the participant’s general background with the research topic. This section should be brief as it is not the focus of the study. Questions for the interviewee background are listed under A. Questions that get at the heart of the study are listed under B.

A. Interviewee Background

1. *Currently, you are a NAME Position. Have you always been in this role? Briefly describe your journey to this point.* (Possible prompts: What made you choose this path? Any prior experience?)
2. *Where and when did you get experience with UDL?*

B. Study specific questions

*I really want to learn about your perspective when it comes to implementing UDL. My questions are designed to learn about the implementation, teacher, administrator, and student experiences, and how labeling plays out in the classroom. So, please share away, and remember, I am using a pseudonym and will maintain confidentiality. This also goes for any names you share with me.*

1. *What do you remember from the implementation of UDL at your school?* (Possible prompts: Who provided professional development? What was the initial reaction by staff? How prepared did you feel after training?)
2. *What do you see as barriers to the implementation of UDL?* (Possible prompts: What have you heard others say about barriers? Why do you think these barriers exist?)
3. *What do you see as best practices for implementing UDL?* (Possible prompts: Why do you think these practices were not followed? How would you implement UDL?)
4. *How do students view UDL in their classrooms?* (Possible prompts: What impact is there on student achievement? How about social and emotional learning, any impact?)
5. *What successes and/or failures have you seen with UDL?* (Possible prompts: What was the cause? What might prevent or promote success/failures?)
6. *Who utilizes supports (audio books, speech to text, etc.) to engage in learning?* (Possible prompts: How are student viewed that utilize these supports? When supports are provided to all, how does this affect willingness to use these tools?)
7. *How does UDL help or hinder the learners in your classroom?* (Possible prompts: When UDL is not employed and a student utilizes assistive technology what do you see as students' perception of that student as well as their own self-perception?)
8. *How does UDL affect your teaching?* (Possible prompts: What is the time commitment? Change in practice?)
9. How do labels, both formal and informal, play out in the classroom? (Possible prompts: When a student has a label, let’s say, as a special education student, what implications are there for treatment/expectations from teachers? Students? How about if one were labeled gifted?)


11. What is teaching/learning like in a UDL environment versus a non-UDL environment? (Possible prompts: Which do you prefer and why? If someone walked in a classroom (UDL and non-UDL) what might their impression be when they see various supports?)

12. What have you heard other teachers and/or students say about UDL? (Possible prompts: What might affect their perception?)

13. Can you think of any counterargument/argument that a teacher might make for using UDL? (Possible prompts: What might a student say?)

14. Are there any questions that you were expecting me to ask and/or wished I had asked?

Well, that concludes the interview. Thank you so much for your time and perspective. I greatly appreciate the help. Do you have any questions for me at this time? After the interview is transcribed, I can share it with you for your review. Also, after you leave, please let me know if you have any questions.
Appendix E: Administrator Interview Protocol

Interview Protocol Form

Institution: ABC School (pseudonym)

Interviewee: Name (pseudonym), Position

Interviewer: Jeremy Cross, Assistant Principal

RESEARCH QUESTION: How do elementary teachers and administrators, who have gone through a UDL implementation, make sense of their experience?

Part I:

Introductory Session Objectives (5-7 minutes): Build rapport, describe the study, answer any questions (under typical circumstances an informed consent form would be reviewed and signed here).

Introductory Protocol

Thank you for meeting with me, NAME. I know you are very busy, so I greatly appreciate your time and willingness to sit for an interview with me. As you have a great deal of experience with UDL, I thought you would be a great person to speak with to gain insight into administrators’ perspectives. My research project focuses on the experience of both teachers and administrators with an implementation of UDL. Through this study, I hope to gain insight into what you see as best practices for implementing UDL, what potential barriers there are, and what, if any, effect UDL has on how students are treated because of either formal or informal labels. I am hoping this study provides information as to how to best implement UDL and how labels play out in the classroom/school environment.

Your perspective is very important to me. As such, I would like to record the interview today to ensure I accurately capture what you share. Do you give your consent for me to record? [If yes, thank the participant and turn on the recording equipment]. In addition to the recording, I make take down notes as well. However, everything you share will remain confidential. In fact, I will use a pseudonym for both the school’s name and your name when I quote from the transcript. I will be the only person to have access to the recording of the interview. And, after the interview is transcribed, I will destroy the recording. To summarize: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) I do not intend to inflict any harm. Do you have any questions about the interview process or how your data will be used?
Again, thank you for your time. I have a list of questions that should take approximately 45 minutes to answer. I will monitor the time to ensure you have ample time to answer each question. Before we begin, do you have any questions for me?

Part II: Interviewee Background (5-10 minutes)

Objective: To establish rapport and obtain the story of the participant’s general background with the research topic. This section should be brief as it is not the focus of the study. Questions for the interviewee background are listed under A. Questions that get at the heart of the study are listed under B.

A. Interviewee Background

1. Currently, you are a NAME Position. Have you always been in this role? Briefly describe your journey to this point. (Possible prompts: What made you choose this path? Any prior experience?)
2. Where and when did you get experience with UDL?

B. Study specific questions

I really want to learn about your perspective when it comes to implementing UDL. My questions are designed to learn about the implementation, teacher, administrator, and student experiences, and how labeling plays out in the classroom. So, please share away, and remember, I am using a pseudonym and will maintain confidentiality. This also goes for any names you share with me.

1. What do you remember from the implementation of UDL at your school? (Possible prompts: Who provided professional development? What was the initial reaction by staff? How prepared did you feel after training?)
2. What do you see as barriers to the implementation of UDL? (Possible prompts: What have you heard others say about barriers? Why do you think these barriers exist?)
3. What do you see as best practices for implementing UDL? (Possible prompts: Why do you think these practices were not followed? How would you implement UDL?)
4. How do students view UDL in their classrooms? (Possible prompts: What impact is there on student achievement? How about social and emotional learning, any impact?)
5. What successes and/or failures have you seen with UDL? (Possible prompts: What was the cause? What might prevent or promote success/failures?)
6. Who utilizes supports (audio books, speech to text, etc.) to engage in learning? (Possible prompts: How are student viewed that utilize these supports? When supports are provided to all, how does this affect willingness to use these tools?)
7. How does UDL help or hinder the learners in your school? (Possible prompts: When UDL is not employed and a student utilizes assistive technology what do you see as students’ perception of that student as well as their own self-perception?)
8. How does UDL affect your teachers and your leadership? (Possible prompts: What is the time commitment? Change in practice?)
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11. What is teaching/learning like in a UDL environment versus a non-UDL environment? (Possible prompts: Which do you prefer and why? If someone walked in a classroom (UDL and non-UDL) what might their impression be when they see various supports?)

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13. Can you think of any counterargument/argument that a teacher might make for using UDL? (Possible prompts: What might a student say?)

14. Are there any questions that you were expecting me to ask and/or wished I had asked?

Well, that concludes the interview. Thank you so much for your time and perspective. I greatly appreciate the help. Do you have any questions for me at this time? After the interview is transcribed, I can share it with you for your review. Also, after you leave, please let me know if you have any questions.
Appendix F: Member Check Form

Date of interview:

Interviewer:

Interviewee:

The researcher has reviewed the findings from the interviews with the interviewee, and I attest to the following statements (check boxes that apply and initial):

- I have verified the accuracy of the report
- I agree that the description is complete and realistic
- I agree that the themes are accurate
- I agree that the interpretations are fair and representative
- I do not agree with the description, themes, and/or interpretations and I make the following suggestions (see comments below)

<table>
<thead>
<tr>
<th>Interviewee</th>
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<th>Researcher</th>
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Comments:

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