UNIVERSITY OF CALIFORNIA

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Teaching in an Inclusion Setting:
Support and Training for Middle School General Education Teachers

A dissertation submitted in partial satisfaction of the requirements
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by

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ABSTRACT OF THE DISSERTATION

Teaching in an Inclusion Setting:
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by

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Doctor of Education
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Professor Kimberley Gomez, Chair

Because anecdotal information and the literature suggest that general education teachers often perceive that they have been either not trained or inadequately trained for teaching in an inclusive setting, I designed and implemented a professional development module to train and support middle school general education inclusion teachers. This module was created based on the Universal Design for Learning (UDL) framework. To understand and evaluate how this module affected teachers and teaching in inclusive settings, this qualitative study included a focus group, in addition to three study teachers who were interviewed and observed in their classrooms both before and after the UDL training. While UDL was unknown to the participants, the framework, the participants found it gave them more tools to reach all of their students. It was also found that teachers felt a tension between wanting to reach all of their students with different strategies but needing to prepare them for standardized assessments. In general, teachers expressed views more along the lines of the medical model of disability. They saw the student as being deficient in skills and working to make these students succeed at the
standardized, normal assessments. However, there was criticism about the placement of the students based on their test scores which was more in keeping with the social model. This researcher further found that the need and desire for professional development was conditional as difficulties with recruiting participants necessitated multiple recruitment efforts and a change in the study’s original format.
This dissertation of Helen Ligh is approved.

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Dedication

Thank you to my mother and brother Melvin for their unwavering support and extra tasks they did when I needed to work on this and my full-time teaching.

Thank you to the spirit and legacy of my father who instilled in me the meaning of hard work and persistence.
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Chapter One – Problem Statement

General education teachers are increasingly being asked to teach classes in which special education students are mainstreamed. These classes are called inclusion classes. However, general education teachers are often given little to no training in teaching students with special needs or in working with special education personnel such as a special education co-teacher, instructional aides, or students’ one-to-one aides (Fuchs, 2009; Idol, 2006a; Kosko & Wilkins, 2009; Tankersley et al., 2007). Without such training, there is a risk the teacher will be unable to make the core curriculum accessible to the student with special needs or will be unable to raise the level of rigor necessary for both the special and general education students to be successful. A common recommendation in the research literature is for more professional development in inclusion practices and models for the general education teacher and for the pre-service teacher (Austin, 2001; Gurgur & Uzuner, 2010; Kosko & Wilkins, 2009; Santoli et al., 2008; Worrell, 2008). Unfortunately, having professional development is not a simple matter. Barriers such as budget shortfalls and a lack of agreement on the type and amount of professional development are common.

Background Information on the Problem

General education teachers are generally not prepared, or poorly prepared for special education inclusion. This lack of training or preparation of the general education teacher for the inclusion of students with special needs in his/her classroom is significant because of the requirements of national legislation and court cases. As mandated by law, beginning with PL 94-142 Education for All Handicapped Children Act (1975), and reauthorized as the Individual with Disabilities Act (IDEA, 1991) and amended in 1997 and 2004, students with disabilities have the right to a “free, appropriate public education in the least restrictive environment” (Laudan &
Loprest, Pamela, 2012, p. 99). Further, both court cases and Congress support the placement of students with disabilities in a mainstream or inclusive class with their non-disabled peers.

Baker, Wang, & Walberg (1994) indicate that the burden of proof is on school districts to prove that a removal from regular classes is warranted. Biegel (2012) indicated that Congress “explicitly recognize a presumption that placing the child with disabilities in the regular education is appropriate” (p. 613).

The approaches that have been traditionally offered for supporting students with special needs are mainstreaming (partial day inclusion) and full inclusion (all day). Inclusion refers to the placement of special education students in a general education setting. In such cases, the general education teacher is often offered the support of the special education teacher in consultation and/or as a co-teacher in the same classroom (Austin, 2001; Baker et al., 1994; Burstein et al., 2004; Daniel & King, 1997; Fuchs, 2009; Huber et al., 2001; Idol, 2006a; Kilanowski-Press et al., 2010; Murawski & Swanson, 2001; Santoli et al., 2008). Different types of inclusion and support have been noted in the research. However, there are few studies that link a specific type of inclusion to specific outcomes for special education students and the general education students within the same classes (Austin, 2001; Baker et al., 1994; Huber et al., 2001; Kilanowski-Press et al., 2010; Murawski & Swanson, 2001).

At the school site where I work as a general education teacher, inclusion of students with mild to moderate learning disabilities, called RSP (Resource Specialist Program) students, has occurred in the language arts/social studies block, science, physical education and electives for over 20 years. While some of us who teach in the school were trained in the co-teaching model, it is often not a viable model because of lack of planning time and a scarcity of resource specialist (special education) teachers to fully co-teach in each of the inclusion classes. Thus a
variety of models are used at my site, mirroring the diversity of such models found in the literature (Aron & Loprest, Pamela, 2012; Kilanowski-Press et al., 2010; Murawski & Swanson, 2001).

In other schools in my district, there are also a variety of inclusion models with no clear direction or understanding of what model works best. We also lack comprehensive leadership to guide both general education and special education personnel or set standards for successful inclusion. Currently, there is a new Director of Special Education. There have been four different directors in the last ten years, including a year in which there was no Director. In an interview with one of our three Program Specialists, he indicated that there is no measure or rubric to describe the inclusion models used throughout the district. Furthermore, there is also no standard training for either a special education or general education teacher for inclusive settings.

In my district, this lack of agreement of what constitutes inclusion and of what training is necessary is not surprising as the research has been largely unclear as to what constitutes inclusion (Austin, 2001; Huber et al., 2001; Kilanowski-Press et al., 2010; Murawski & Swanson, 2001). Without knowing the exact model of inclusion, or “treatment integrity” (Murawski & Swanson, 2001), it is difficult to determine what characteristics led to specific findings, both supporting or opposing inclusion. Also, it is difficult to determine what characteristics of inclusion are most effective. Some studies have focused on only one or two elements of the school’s inclusion model as to how special education students are placed (randomly or in specific classes); how many students with disabilities are placed in a specific class; the type of support of the special educator (within the classroom, in consultation, or in a separate supportive class) and other support (instructional aides or volunteers). What is clear in
the literature is the need for models of inclusion which take into account the different variables and studies which relate them to student needs and outcomes (Austin, 2001; Daniel & King, 1997; Huber et al., 2001; Kilanowski-Press et al., 2010; Murawski & Swanson, 2001).

Beyond the physical placement of students with special needs and of special education personnel and the need for professional development, there is also not consensus on specific best practices or instructional strategies and teacher attitudes for teaching inclusion classes (Baker et al., 1994; Fuchs, 2009; Huber et al., 2001; Kilanowski-Press et al., 2010). While a body of specific practices have not been recommended nor mandated, a framework called Universal Design for Learning (UDL) has shown promise as a way for teachers to develop their curriculum based on their past trainings and experiences as well as capitalizing on the growing accessibility of technological assistive devices. Furthermore, some researchers have noted that language in the federal special education law is favorable to elements of Universal Design for Learning (Edyburn, 2010; Jimenez et al., 2007; Kennedy et al., 2014; Mcguire et al., 2006; Narkon & Wells, 2013).

**Research Design and Population**

Because anecdotal information and the literature suggest that general education teachers often perceive that they have been either not trained or inadequately trained for teaching in an inclusive setting, I explored these questions which guided my study:

1) To what extent does participation in a professional development intervention grounded in the philosophy of Universal Design for Learning impact general education teachers’ perceptions of the placement and capabilities of students with special needs in their inclusive classroom settings?

2) To what extent does participation in professional development grounded in the Universal Design for Learning framework affect general education teacher pedagogy in the inclusive education setting?
I designed and implemented a qualitative professional development module to train and support middle school general education inclusion teachers. This module was created based on the Universal Design for Learning (UDL) framework. My aim was to understand and evaluate how this module affected teachers and teaching in inclusive settings, to improve their practices, and to better support students with special needs in their classrooms. The intervention trained the teacher participants to apply the UDL principles of multiple means of engagement, representation, and action and expression to their lessons.

After meeting with the Deputy Superintendent of the target district, I received permission to conduct my study in the district as well as promises to provide stipends to the participating teachers. First, a focus group was held with three general education teachers. Those teachers did not continue into the intervention study. After different recruitment strategies proved unsuccessful\(^1\) and a streamlined study was approved by my Chair and IRB, three general education teachers from one middle school in the target district who taught in inclusive settings were selected to participate in the intervention. Qualitative data was collected through interviews and classroom observations both before and after a UDL training session.

**Significance**

It was my hope that this intervention would provide the district with a useful and effective model of professional development for supporting general education classroom teachers in incorporating UDL practices for the benefit of all of their students, especially those with special needs. I also hoped that this effort would contribute, more broadly, to the research on training for general education teachers in an inclusive setting.

\(^1\) These difficulties are documented in Chapter Four.
Chapter Two – Literature Review

Inclusion has been the preferred delivery model for special education students since the reauthorization of the Individuals with Disabilities Act in 1991. Early research in this area focused on whether or not inclusion was occurring and to what extent. The data supported the argument that inclusion should happen not only because it was the law but because of an increase in reading and math scores, using meta-analysis of effect size, and reduction of stigma to special education students (Baker et al., 1994; Daniel & King, 1997; Huber et al., 2001; Murawski & Swanson, 2001). Later research has documented more specific elements of inclusive education such as the type of support for the general education classroom (Austin, 2001; Idol, 2006b; Kilanowski-Press et al., 2010; Weiner & Murawski, 2005), teacher attitude and personality (Austin, 2001; Gurgur & Uzuner, 2010; Tankersley et al., 2007) and effect on the general education student in the inclusive classroom (Huber et al., 2001; Weiner & Murawski, 2005). Through surveys and interviews with both general and special education teachers, researchers have also identified a need for training of teachers who participate in inclusive settings (Austin, 2001; Boyle & Topping, 2012; Fuchs, 2009; Idol, 2006b; Kosko & Wilkins, 2009; Tankersley et al., 2007). Since this need for teacher training is supported by both the literature and my own experience, I created and implemented a training model for general education teachers placed in inclusive settings.

The following literature review is organized into five areas. First is a description of the current status of the inclusion of students with special needs in general education classrooms. This includes the current laws, relevant court cases, and statistics on the programs and students in special education as documented by the US Department of Education. The second section describes studies of inclusion in practice in the United States. This section will describe the
variety of models, training and support offered and will demonstrate the key role of the general education teacher in an inclusion class. The third section is a review of best practices for effective inclusive programs. This section discusses the issues of structure such as student and support staff placement and scheduling, effective teacher attitude and perspectives, and teaching strategies to design appropriate and effective instruction for diverse learners with an emphasis on the Universal Design for Learning framework. The fourth section describes two views of disabilities, the medical model and the social model and the effect of these views on the General Education teachers. Finally, in the fifth section, I describe the best practices for professional development for adult learners.

**Section One: Legal Status of Inclusion**

The federal government’s involvement in the education of students with special needs began with The Education for the Handicapped Act of 1970 (Biegel, 2012). Since that time the federal laws have increasingly recommended that students with special needs be educated in regular schools and then within general education classes. In 1975, PL 94-142, Education for All Handicapped Children Act (EAHCA) called for “equal access to education for children with physical and mental disabilities” (Ahram, Fergus, & Noguera, 2011, p. 2234), and Daniel & King (1997) calls this law the “foundation for all inclusive education” (p. 67). There are three requirements of this law, which are still in effect: “(1) children with disabilities receive Individualized Educational Programs (IEPs); (2) schools provide to students with disabilities a free and appropriate public education (FAPE); and (3) that this education occur in the least restrictive environment (LRE) appropriate” (Biegel, 2012, p. 612). The court established in *Oberti v Clementon* that school districts have the burden of proof to justify removal of students with disabilities from regular classes (Baker et al., 1994). Further, in 1993, the Improving
Schools Act and Goals 2000 included calls for “an inclusive approach” as a way to increase achievement for all students, including students with special needs (Baker et al., 1994).

In 1990, the EAHCA was renamed Individuals with Disabilities Education Act (IDEA), and its reauthorization in 1997 emphasized placement of students with special needs in inclusion settings (Murawski & Swanson, 2001). In fact, Biegel (2012) states that this law “explicitly recognize that placing a child with disabilities in the regular education classroom is appropriate” and “before a school removes a student from the regular educational setting, the school must include in the student’s IEP an explanation for this removal” (p. 613). The current law, passed in 2004, now named Individuals with Disabilities Educational Improvement Act (IDEIA), has added protections that interventions be documented before testing and placement for special education begins, and according to Biegel (2012), aligns with NCLB (No Child Left Behind) by holding schools accountable for the success of all their students, including those with disabilities. While the 2004 law also recognized the need for a continuum of services, it also reemphasized inclusive practices (Kilanowski-Press et al., 2010).

As of the 2009 Department of Education statistics, 95% of the 6 to 21 year old students with disabilities were served in regular schools rather than in special schools for students with disabilities. The 2009 statistics breaks this down to be 59.4% of all students with disabilities are educated outside the regular classroom less than 21% of the day; 20.7% are educated outside of the regular classroom 21-60% of the school day and 14.6% are educated outside of the regular classroom more than 60% of the school day (Fast Facts: Students with Disabilities, Inclusion Of, n.d.). This statistic, 59.4%, represents an increase from 1993 when only 39.3% of students with disabilities were served in regular classrooms for at least 79% of the day (Tankersley et al.,
Clearly more students with disabilities are being placed in general education classrooms under the responsibility of the general education teacher.

Section Two: Inclusion in Practice

As the law requires and the statistics demonstrate, the majority of students with disabilities are taught in the general education classrooms. However, the number of students with disabilities placed within a general education class and how these students and their teachers would be supported have not been mandated. Kilanowski-Press et al. (2010) found a low of 4.65 students with disabilities to a high of 11 students in a general education class. On average, the 71 New York teachers they surveyed reported a class size of 23.75 students serving 9.05 students with disabilities\(^2\). Huber’s et al. (2001) longitudinal study of 477 students in 30 classrooms in three different elementary schools went beyond simply documenting the number of students within general education classes. They compared changes in achievement of high, middle and low achievers across three years of inclusive practices and the effect of the number of students with disabilities on achievement. Classes had as few as 0 and as many as 7 students with disabilities in a single classroom setting. The researchers concluded that the number of students with disabilities within general education classes did not have a significant effect on students’ reading achievement. However, with math achievement, the number was associated with different levels of achievement. Classes with one, five and six included students with disabilities showed significant gains in math but those with seven included students showed a significant drop. Classes with two, three, or four included students showed minor drops. Although Daniel & King (1997) also found mixed results among the students in the 12 grade 3-5 classrooms they studied, they do conclude that “the regular classroom may be appropriate for a limited number of

\(^2\) In *M.W. v. New York City Department of Education* (2013), the Court of Appeals for the Second Circuit upheld a New York law that set the maximum of 12 students with disabilities in an integrated or inclusion class.
students with special needs, but increasing this number beyond a certain optimal level may produce diminishing returns” (p. 79). This limited enrollment makes intuitive sense; however, the “optimal” level was not established in their study and has not been definitively established in any study.

In addition, schools have supported these students and their general education teachers in a variety of ways (Austin, 2001; Idol, 2006b; Kilanowski-Press et al., 2010). There are four common support structures. The first is the consulting teacher model in which the special education teacher consults directly with the general education teacher, advising that teacher how to adapt curriculum, provide remediation, and modify assessments. The second is the supportive resource model in which the special education teacher directly supports the students with their learning from the general education class but does so in a separate resource room, apart from the general education classroom. The third is the cooperative teaching model, often called the co-teaching model, in which both the special education and general education teachers work together in the same classroom with all the students. The fourth is the instructional assistant model in which paraprofessionals work in the general education classroom, primarily with the special education students, and often under the supervision of the general education teacher.

These models are not mutually exclusive and more than one model may be in operation at one school and even in one classroom. In their descriptive study of inclusive practices in New York state, Kilanowski-Press et al. (2010) documented this complexity. They randomly chose 50 principals from each level of elementary, middle, and high schools, asking for their participation in distributing surveys to the teachers the principals identified as working in an inclusion setting. They received 71 responses: 36 elementary, five middle and 27 high school teachers. Thirty-nine teachers were from rural communities, 26 teachers from suburban
communities and two from urban communities\textsuperscript{3}. They found that 58 of the elementary, middle and high school teachers received support by consulting special education teachers. Consulting teachers supported the general education teachers with planning assistance as well as working with students in small groups and one-to-one student settings. Of those, small group instruction was reported the most. Co-teaching with the special education teacher was found to be more common in the suburban and urban communities than in the rural communities.

Additionally, Kilanowski-Press et al. (2010) found that 15 of the teachers were supported by a teacher assistant or aide. These assistants worked with students in small groups and one-to-one as well as co-teaching. They also found that 45 of the teachers were supported with a classroom volunteer whose tasks were the same as those of the teacher assistants.

Despite the variety of models, for practitioners and researchers, co-teaching, also known as cooperative or collaborative teaching, has been the model of choice (Austin, 2001; Kilanowski-Press et al., 2010; Magiera & Zigmond, 2005; Murawski & Lochner, 2011; Salend & Whittaker, 2012; Scruggs, Mastropieri, & McDuffie, 2007; Walsh, 2012). In fact, Kilanowski-Press et al. (2010) state that co-teaching is “frequently referred to as the premier format for inclusive instruction” (p. 46). In the co-teaching model, the general education and special education teachers “co-plan, co-instruct, and co-assess,” sharing in all three stages (Murawski & Lochner, 2011). Cook & Friend (1995) argue that co-teaching brings together “different but complementary perspectives” of the general education teacher who brings content and instructional knowledge and the special education teacher who brings behavior and learning knowledge, and both then provide “substantive instruction” to all the students (p. 2). These two professionals can then better support all students by increasing instructional approaches,

\textsuperscript{3} The numbers for type of level and for school communities do not add up to 71 but the authors did not address these discrepancies.
participation and engagement in the classroom. Also by being in the same classroom, the co-taught classroom reduces the stigma that can occur when students with disabilities are isolated from or pulled out of the regular classroom, away from their peers.

Five co-teaching variations have been commonly identified (Cook & Friend, 1995; Murawski, 2012; Salend & Whittaker, 2012; Scruggs et al., 2007). In One Teach, One Assist\(^4\), one teacher is responsible for delivering the lesson to the whole class and the other teacher provides individual support as needed. In Station Teaching, several different learning stations are set up in the classroom and the students rotate among them with the teachers providing support at different stations. In Parallel Teaching, the two teachers instruct the same content to different groups of the same class. In Alternative Teaching, the two teachers teach different content or different skills to different groups of the same class. Finally, in Team Teaching, both teachers share in the delivery of the lesson to the whole class.

Of the five variations, the one that has been used the most was One Teach, One Assist (Murawski & Lochner, 2011; Scruggs et al., 2007). In their metasynthesis of 32 qualitative studies, Scruggs et al. (2007) found that “some version” of One Teach, One Assist was reported in 22 of the studies. In that strategy, the general education teacher has been most often found to be in the dominant or lead instructional role and the special education teacher has been subordinated to the role of an assistant or aide. The reduction of the status of the special education teacher is problematic, going against the ideal of two professionals providing substantive instruction. Some researchers have found this imbalance has negatively affected both the special education and general education teacher. Because of the loss of their students, classroom, and instructional responsibilities, the special education teachers may feel ineffective,

\(^4\) One Teach, One Assist has also been called One Teach, One Drift or One Teach, One Support.
frustrated, and diminished as professionals (Tankersley et al., 2007). On the other hand, general education teachers have often felt overwhelmed, burdened and unsupported, feeling tension between themselves and their co-teaching partners because of the “unequal distribution of responsibilities and duties” (Fuchs, 2009, p. 33). Thus, even in the co-teaching structure, it is likely that the planning, instruction, and assessment is predominantly the responsibility of the general education teacher.

Both general education teachers and special education teachers have shared other problems with co-teaching such as the lack of training (Austin, 2001; Burstein et al., 2004; Fuchs, 2009; Idol, 2006b; Kilanowski-Press et al., 2010; Kosko & Wilkins, 2009; Scruggs et al., 2007; Tankersley et al., 2007; Topping, 2012) and planning time (Austin, 2001; Burstein et al., 2004; Fuchs, 2009; Santoli et al., 2008; Scruggs et al., 2007; Tankersley et al., 2007). Kosko & Wilkins (2009) found the amount of professional development to be “statistically significant and positively related to teachers’ perceived ability [sic] to adapt instruction” (p. 7). Also, the most “prominent” explanation given for special education teachers’ difficulties working with the general education teacher was a “lack of preparation for inclusion” (Tankersley et al., 2007, p. 139). General education teachers felt ill-prepared to teach diverse learners (Fuchs, 2009). Both the general education and special education teacher emphasized the need to learn collaborative techniques (Austin, 2001). Other needs reported by the researchers included accommodation and adaptation strategies for curriculum and instruction, appropriate assessment techniques, use of cooperative peer groups, and observations of inclusion in action.

Given that the majority of planning, instruction and assessment in the inclusive classroom has most often fallen on the shoulders of the general education teacher, it is imperative that
training focus on the general education teacher and how he or she can best teach students of varying abilities, including those with disabilities, within the same classroom.

**Section Three: Best Practices**

It is clear from the research that there is a need for more support for the general education teacher in inclusive settings. This support begins with structuring the inclusion and training the teacher in best practices.

In structuring the inclusion, the administration of the school must plan carefully, dealing with how and where to place the students with disabilities and the staff who will teach and support them. While the optimal number of students with disabilities in a regular classroom is not clear, the planning of how many, the behavior of the students, and what support will be provided are significant. Whereas teachers may believe the fewer the students with disabilities in a classroom is ideal, too few may be problematic as well. In a study of 102 students with disabilities in Italy, researchers found that “students felt less alone if attending classes with two or three disabled students,” and they recommend that this be investigated further in light of the Italian preference for only one student with disabilities placed in any one classroom (Reversi, Langher, Crisafulli, & Ferri, 2007). Another important issue is the behavior of students in the classroom (Daniel & King, 1997; Idol, 2006b; Scruggs et al., 2007). In particular, if the regular class is populated with many students with behavioral issues, either special or general education students, “these ill-fated classrooms set teachers and students up for failure and frustration” (Scruggs et al., 2007, p.402).

The staff who support the students with disabilities also need to be carefully chosen and deployed. In any inclusive model, both the general education and special education teacher are key figures. What attitudes they bring (Aron & Loprest, Pamela, 2012; S. Baglieri & Knopf,
2004; Boyle, 2012; Daniel & King, 1997; Idol, 2006b; Salend & Whittaker, 2012; Santoli et al., 2008) and how they work together (Austin, 2001; Flores, 2008; Gurgur & Uzuner, 2010; Kilanowski-Press et al., 2010; Mastropieri & Scruggs, 2012; Murawski & Lochner, 2011; Salend & Whittaker, 2012; Scruggs et al., 2007; Worrell, 2008) are crucial to the success of inclusion.

In regards to attitude, if a teacher is to help a student succeed, the teacher needs to believe that student can succeed. When a general education teacher has a student with a disability, there is the danger that that teacher will see that student as less capable, abnormal, and unable to meet high standards (S. Baglieri & Knopf, 2004). Teachers may see a student’s difference as negative and that he/she needs to be normalized to be successful in the same way as the general education students are and maintain the status quo. One way to avoid this danger is for teachers to understand that all students have differences and adopt a “competency-oriented approach” (Salend & Whittaker, 2012). This approach includes viewing all students, not just the students with special needs, as multi-dimensional, having abilities and interests, and deserving of independence and self-determination. This approach discourages a focus on a student’s disabilities, difficulties and use of terms associated with pity, suffering, and notions of normality. These issues are further explored in the next section.

Another crucial component is the working relationship of the general education and special education teacher. In fact, the relationship is often described as a marriage (Howard & Potts, 2009; Scruggs et al., 2007). It is most successful when entered into voluntarily and on equal footing, when mutual respect and trust develops, and when time is allocated for the two teachers to plan together. Planning time is necessary, and this should be a part of the administrator’s careful plan. Planning time could be arranged in several ways. The co-teachers could be assigned the same preparation period, regularly have substitute teachers or special
teachers in their place for a full or half-day. However, as the research cited in the previous section indicated, even though co-teaching is seen as the preferred inclusion model the preparation time needed is often not provided. This leads to the general education teacher alone to plan and implement instruction with little to no time to consult or enter into a true co-teaching situation.

The final component is what happens in the inclusion classroom itself: the content or standards, the process of teaching and learning, and the assessment to demonstrate what the student knows and is able to do. The literature in the last decade has studied a framework which attempts to weave pedagogical approaches in a way that reflects student diversity, and accommodations for all students, aligning with a “competency oriented approach” (Salend & Whittaker, 2012). This framework, Universal Design for Learning (UDL) (Courey et al., 2013; Coyne et al., 2012; Hitchcock et al., 2002; Jiménez et al., 2007; Pisha & Coyne, 2001; Spooner et al., 2007), was inspired by the architectural concept of Universal Design in which the access needs of as many people as possible are considered at the very beginning stages of design. Similarly, UDL plans for the “needs of the entire range of learners who are or could be in today’s classrooms, and then design curricula, materials, methods, and environments that support and challenge each learner as appropriately as possible” (Pisha & Coyne, 2001, p. 197), and in UDL, “instruction is no longer blanketed teaching but planned for learner success instead of waiting for learner failure” (Stanford & Reeves, 2009, p. 4). In addition, since the curriculum is planned at the beginning to support a variety of learners, adaptations can be made invisible and open for all to choose rather than an obvious modification for the student with disabilities (Hitchcock et al., 2002; Pisha & Coyne, 2001; Pisha & Stahl, 2005). Some researchers have noted that the
language in federal law references Universal Design for Learning (Edyburn, 2010; Jimenez et al., 2007; Kennedy et al., 2014; Mcguire et al., 2006; Narkon & Wells, 2013).

In the 2004 IDEIA law, universal design is mentioned but its definition is found in the earlier Assistive Technology Act of 1998. That act states

The term “universal design” means a concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly usable (without requiring assistive technologies) and products and services that are made usable with assistive technologies. (U.S.C. §3002)

It is no surprise that six of the eight empirical studies I found utilize some form of assistive technology in its UDL design (Basham et al., 2010; Coyne et al., 2012; Kennedy et al., 2014; Marino, 2009; Marino et al., 2014; Zydney & Hasselbring, 2014).

UDL starts with what needs to be learned. This learning is supported by the three elements of UDL: representation, action and expression and engagement. In representation, teachers create lessons in which the students can access the content in a variety of ways. With digital media, the text, images, and graphics can be made to be most understandable for students using such tools as increasing the font, having less text per screen, having the text read out loud, and choosing hyperlinks to access additional information or visuals (Flores, 2008; Hitchcock et al., 2002; Pisha & Stahl, 2005). In action and expression, teachers accept a variety of alternatives for a student to demonstrate what he/she knows. Keeping the learning goal in mind, each alternative should allow each student to successfully demonstrate his/her learning without failing simply because the format itself is a barrier (Hitchcock et al., 2002). In engagement, teachers create conditions and choices to motivate their students to learn and persist. Engagement can be gained by tapping into students’ interests, novelty or challenge; by having students
collaborate with their classmates in pairs or small groups; and by allowing multiple opportunities and strategies to learn.

While the pieces of the UDL framework have been well-studied and had documented benefits, UDL as a whole has been subject to only a few empirical studies (Coyne et al., 2012; Katz, 2013; Mitchell, 2014; Spooner et al., 2007). Eight studies investigated the UDL framework applied in schools, and two studies analyzed how pre-service and in-service teachers applied the UDL framework to their lesson planning.

Because UDL is framework rather than a set of specific instructional strategies, the eight school-based studies were quite different, varying in grade levels participating, academic subject matter, and measurements of change. Four documented increased student achievement (Coyne et al., 2012; Kennedy et al., 2014; Marino et al., 2014; Zydney & Hasselbring, 2014), four documented increase in student engagement, a major principle of UDL, (Abell et al., 2011; Basham et al., 2010; Katz, 2013; Marino et al., 2014), and six utilized technology (Basham et al., 2010; Kennedy et al., 2014; Marino, 2009; Marino et al., 2014; Pisha & Coyne, 2001; Zydney & Hasselbring, 2014). Two of the studies using technology seemed more concerned about testing their “proof of concept,” or in other words, testing the use of the technology (Basham et al., 2010; Marino, 2009). Perhaps, this diversity of studies can be seen as strength indicating the flexibility and applicability of the UDL framework in those different circumstances.

The four studies which documented increase in student achievement focused on four different subject areas. Coyne et al. (2012)’s study focused on reading skills of 16 K-2 students with “significant intellectual disabilities” in both separate and inclusive settings. Using an approach developed by the researchers called Literacy by Design, students had multiple
opportunities to practice reading skills with e-books that included on-demand support. The students showed improvement in comprehension and word attack skills.

Zydney & Hasselbring (2014)’s study focused on increasing math skills and use of technology to problem-solve. The 136 participants ranged from upper elementary to early high school students, and 20 were students with learning disabilities. Students used *Math Pursuits*, which embedded math problems within an adventure story. The software allowed students to receive more support on demand from the program or from the teacher who is alerted via the same software. Also the software allowed students to challenge themselves with more complex problems. The researchers noted an increase in math achievement scores including students with learning disabilities who improved their scores “substantially…21% to 51%” (26).

For Marino et al. (2014)’s study, the focus was increasing understanding of scientific vocabulary and concepts at the upper elementary level. The five 4th and 5th grade classes participated in two UDL-aligned units (enhanced with educational video games and supplemental reading) and two non-UDL (traditional) units. While all students showed an increase from pre- to post- test scores and higher engagement and connection, the increase was greater for traditional units. The researchers suggest that this was due to the fact that in the traditional units, the teachers reviewed for the test the day before. The better results from the traditional units could also be attributed to the fact that all tests, in UDL and non-UDL units, were traditional pencil-and-paper tests rather UDL-aligned assessment which would have allowed for multiple means of expressing or demonstrating what the student learned. Mislevy et al. (2013) call into question the very idea that the same test for all is the fairest. They argue for alternative forms of assessment with conditional interference [which] means deliberately varying aspects of an assessment for students to enable each student to access, interact with, and provide responses to tasks in
ways that present minimal difficulty, so the primary challenge is the proficiency meant to be assessed (122).

In other words, they changed the means of engagement and representation but not the third UDL element, action and expression which showed the UDL-aligned instruction resulted in a lower increase between pre-and post-test in comparison to results based on the traditional instruction.

In Kennedy et al., (2014)’s study, the focus was on improving vocabulary performance in 10th grade World History students. The 141 students, 32 of whom had disabilities, were either given the CAP (Content Acquisition Podcast) enhanced unit or the BAU (Business as Usual) unit. Students with disabilities showed “significantly” higher scores (80) in weekly quizzes and the post-test when given the CAP unit compared to the BAU units. This was also true for the general education students. Further, while the general education students’ scores were still higher, the gap between their scores on the BAU units and the scores of students with disabilities on the CAP units was narrowed.

For Katz (2013)’s study of ten schools (six treatment and four control), engagement was the primary measurement. She argued that “The active engagement of students in their learning is predictive of educational achievement, positive attitudes to learning, and student self-efficacy” (157). Her findings demonstrated that after the UDL intervention there was increased engagement and lower levels of passive and non-engagement with all the treatment classes and the opposite in the control classes. Many of the other studies also suggested an increase in student engagement with the addition of UDL elements and indicated this engagement in different ways. Findings were variously described as increased “eagerness” (Coyne et al., 2012), improved attitude in math (Zydney & Hasselbring, 2014), “motivated to learn” (Kennedy et al., 2014), and “collaborative engagement” (Marino et al., 2014).
Basham et al. (2010) claimed that “Related to engagement, students chose their own roles, focused their time within a scaffolded structure, and self-regulated their level of challenge and support…that allowed each student to succeed in learning content and using new technologies” (355). The significance of technology cannot be overlooked primarily because technology can be seamlessly individualized based on student need and as Zascavage & Winterman (2009) state, “technology is now an entitlement for all students protected by IDEA” (47). However, researchers caution that technology alone is not sufficient and recommend professional development for teachers (King-Sears, 2009; Messinger-Willman & Marino, 2010; Zascavage & Winterman, 2009).

The final two studies focused on how pre-service and in-service teacher would incorporate UDL concepts into their lesson plans (Courey et al., 2013; Spooner et al., 2007). Both studies, with the second based on the first, investigated whether or not pre-service and in-service teachers are able to plan lessons for students with disabilities using the UDL framework. In both cases, there was a treatment and a control group. The treatment groups created a lesson plan before and after the UDL training, while the control created two lesson plans in the same time period without the UDL training. In both studies, the treatment group earned higher rubric scores on their second lesson plan, indicating that they had the ability to incorporate UDL practices into their lessons. In the Courey et al. (2013) study, a third lesson plan from the end of the semester was also collected demonstrated continuing application of UDL principles.

This has implications for professional development for current teachers. With support and modeling, UDL principles can begin to be taught and applied in a relatively short span of time, for these interventions were a single one-hour for the first and a three-hour workshops for the second study.
The success of any professional development for general education teachers can also be affected by how they and the school view students with special needs and what their goals are for them. For teachers, it affects how they create instruction and measure progress. For schools, it affects how and where they place students with special needs.

Section Four: Views of Disability

There has been much scholarship looking at the often-unquestioned labels given to Special Education students in an inclusive classroom. These scholars explain that some teachers see that these labels as medically diagnosed while others see the labels as socially constructed. This divergence also affects how a teacher views and reacts his/her students and how a teacher constructs his/her lessons.

The medical model posits that a student is labeled as in need of special education because of a biological basis for their learning disability. Thus, the source of the disability is due to an impairment or deficiency and lies within the student (S. Baglieri et al., 2011; Haegele & Hodge, 2016; Lalvani, 2013, 2015). In her qualitative study of 30 General Education and Special Education teachers, Lavani found “teachers were more apt to locate the ‘problems’ for students with disabilities within individual minds and bodies, leaving individual, cultural, and institutional practices unexamined” (Lalvani, 2015).

The treatment is to minimize the effect of the disability or to overcome the disability. Lavani concluded that the perception of many of the teachers in her study was that “students should be able to ‘keep up’ with their non-disabled peers” and suggests that “the education of students with disabilities continues to be framed in the medical models of disability, which focuses on the need for individuals with disabilities to overcome their limitations in order to fit
into the mainstream society” (Lalvani, 2013). Thus, if the student cannot “keep up,” it is the fault of the student, not the program.

In such a model, the goal is for the student to reach normal proficiency or to appear as if he/she performs at normal proficiency, usually as measured by standardized tests or undifferentiated assignments (Ashby, 2010, 2012; Ashton, 2016; S. Baglieri et al., 2011). This goal could be seen as counter to authentic learning. For example, in the face of a teacher’s excitement that her son was “able to produce work that looked like everyone else’s,” one parent responded, “He is just copying the words. He does not have to think at all. He doesn’t have to understand what he is doing. Copying is not a worthwhile task for him. He doesn’t have to think then” (Ashby, 2010). Unfortunately, Ashby noted that “This copying activity was a frequent occurrence at both schools” (Ashby, 2010).

According to the medical model, educators rely on experts and tests to diagnosis the problem and design treatments (Ashby, 2012; Ashton, 2016; Lalvani, 2013). In addition, General Education teachers often see Special Education teachers as having unique traits and training to better teach students with learning disabilities. Lalvani found that “many articulated beliefs that in addition to being ‘highly trained,’ special education teachers must possess certain personal qualities and dispositions deemed necessary for teaching students with disabilities” (Lalvani, 2013). A consequence of such beliefs could be a dependence on or expectation of the Special Education personnel to educate the student with disability, creating a “special education class embedded within a general education class” (Ashton, 2016). In her qualitative case study of a co-teaching situation, Ashton concluded that the General Education teacher “[assumed] that Val [the Special Education teacher] would get the students with disabilities ‘caught up’ before or after school, during lunch, in the resource room or in study hall” while the Special Education
teacher’s “primary goal appeared to be to make sure that the students with disabilities keep up with Keith [the Gen Ed teacher] and their non-disabled peers without requiring Keith to change the way he taught” (Ashton, 2016).

Another consequence of this model is push back from students who may refuse support from the Special Education personnel, seeing it as a stigma (Ashby, 2010). Rather than appearing to be different by accepting help or working in a different manner, they’d rather struggle on their own. From interviews with parents and teachers of students with disabilities, Lalvani (2015) noted that parents were more sensitive to these supports as stigmatizing to their children than teachers seemed to be. She concluded,

Overall, parents tended to locate the source of the “problems” for children with disabilities in educational and social environments. In contrast, teachers were more apt to locate the ‘problems’ for students with disabilities within individual minds and bodies, leaving individual, cultural, and institutional practices unexamined (Lalvani, 2015).

It is interesting to note that the teacher attitude reflects the medical model of disability while the parent reflects the social model.

The social model posits that a student labeled as in need of special education is due to being different from the socially constructed notion of normal rather than having a deficiency. Thus, the treatment is not mitigation or compensation for a perceived deficit but on changes to the instructional practices and environment of the classroom (S. Baglieri et al., 2011; Danforth & Rhodes, 1997; Lalvani, 2013). The goal is for the student to learn, and the challenge is for the educational establishment to be able to document that learning with a wide range of performance and measurements rather than simply the standardized measures.

In the social model, all students are seen as having differences; however, in society, not all differences are equal. “Students labeled by difference are defined as outliers within schools according to what they have not done, cannot do, or can do very well in relation to the
curriculum” (S. Baglieri et al., 2011). Thus, it is society that views some students as having
deficits, as less than a “normal” child.

Therefore, in the social model if the problem is not an actual deficit in the student, then
the focus needs to be on changing instruction and the educational environment (Ashby, 2012;
Braunsteiner & Mariano-Lapidus, 2014; Lalvani, 2013) as well as changing the assessment or
measurement of learning. This is also in line with Universal Design for Learning.

Section Five: Professional Development Informed by Adult Learning Theory and Universal
Design for Learning

In the previous sections, I presented findings from research literature which appear to
strongly suggest that general education teachers need to be specifically trained for inclusive
settings. This literature also offered insights into current practices in these settings, and a
theoretical and pedagogical framework that appears to have great promise in these settings. In
this section, I will explain how general education teachers can be best trained and supported for
success in their inclusive settings.

Adult learning theory, or andragogy, posits that for learning to occur for adults certain
conditions must be met (Adams, n.d.; Adult Learning Theory and Principles, 2007; Chan, 2010;
Knowles, 1978; McGrath, 2009). Common among these conditions are relevancy, applicability,
and respect (McGrath, 2009). Adults are motivated to learn if they know that the learning is
important and that it directly relates to their lives or careers. Adults want to be able to apply
what they’ve learned to their lives and careers to solve problems, improve something in their
lives, or make improvement in their communities. Most importantly, adults need to feel
respected. Rather than being empty vessels to be filled with knowledge, they want to be
acknowledged for what they do know and have achieved, and they want to help determine what
and how they will learn (McGrath, 2009)
Thus, for professional development of teachers to succeed, the teachers must see a need for the training, must be able to apply the skills or concepts to their classrooms, and must be involved in tailoring the training’s goals and methods to their experience and needs. In addition, successful and sustained learning is more likely for teachers if it addresses the needs of all students, and not just a few such as the students with disabilities, and if it includes collaboration among teachers and follow-up activities such as coaching (McLeskey & Waldron, 2002). In particular, professional development for general education teachers in inclusive settings will have the most success if created collaboratively with those teacher volunteers who see a need for training, if it respects the experiences of the teachers, if it focuses on improvement for all learners such as the UDL framework takes into account, and if it is supportive in follow-up activities such as coaching and reflection.

The development of what became Universal Design for Learning, UDL began in the 1980s by Anne Meyer and David Rose and the organization they co-founded, CAST (Center for Applied Special Technology) to help diverse learners, “those ‘in the margins’ who struggled with learning.” (Meyer et al., 2014). Later, they focused their attention away from the learner to the instruction, curriculum, and assessment of learning and coined the term Universal Design for Learning (UDL). “UDL drew upon neuroscience and education research, and leveraged the flexibility of digital technology to design learning environments that from the outset offered options for diverse learners needs.” (Meyer et al., 2014)

Neuroscience identifies the three networks operating for students to learn. They are the affective, recognition and strategic networks. Each of those networks are centered in different parts of the brain but work together in order for learning to happen. Hinton et al. (2008) described the learning process this way,
The recognition network receives sensory information from the environment and transforms it to knowledge. It identifies and categorises [sic] what students see, hear or read. The strategic network is recruited for planning and coordinating goal-oriented actions. Finally, the affective network is involved in emotional dimensions of learning such as interest, motivation and stress.

The three principles of UDL are modeled after these three networks: Engagement takes into account the affective network, Representation illustrates the recognition network, while the Action and Expression demonstrates the strategic network. In addition, Meyer et al (2014) have recognized the importance of the affective network, placing Engagement first in the Universal Design for Learning Guidelines (see Figure 1).

Figure 1: Universal Design for Learning Guidelines
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Thus, teachers who can offer all of their students options and as well as support to succeed are better positioned to help all of their students overcome the barriers to their learning. These options are not prescribed or described in the UDL guidelines but are left up to the teachers to implement based on their knowledge of the curriculum, various strategies and their students. A major advantage of the UDL framework is that it allows for teachers to apply their knowledge and experience of practices which have been proven successful for their particular curriculum and standards. Marino et al. (2014) noted that “teachers repeatedly indicated that they did not want a prescribed science curriculum. Instead, they wanted the flexibility to incorporate resources for their students while keeping the materials they were familiar with.” The UDL framework can take advantage of the “informed eclecticism” identified by Kasari & Smith (2013) describing the way that teachers intentionally mix approaches and models for greater effect and that this has the “potential for easier implementation and greater sustainability” (264). The ability and responsibility of the teacher to make these choices is also supported by the California Common Core State Standards which state, “Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the Standards” (California Department of Education, 2013, p. 3).

Conclusion

Given the federal push for inclusion education, the need for professional development for the general education teachers and the state of inclusion today, intervention supporting general education teachers is essential and timely. Based on the research about the structure of most inclusive or collaborative classes, the advantages UDL, and adult learning theory, I believe creating an intervention based on the needs of the general education teacher and the UDL
framework is justified. In the next chapter, I describe the qualitative intervention study providing professional development to a group of middle school general education teachers who have been placed in inclusive settings.
Chapter Three- Research Design

Federal law requires that special education students be educated in the least restrictive environment, in most cases that means a general education classroom. This placement is referred to as inclusion. However, the preparation and support of general education teachers necessary for successful inclusion has often not occurred. This lack of preparation and support has been documented in the literature and in the target district of my study.

I conducted a professional development intervention with three middle school level general education teachers who have special education students included in their classrooms. I interviewed these teachers and observed their instruction both before they implemented the UDL framework in their classrooms and after they had participated in the intervention and implemented the Universal Design for Learning framework in their classes. My study sought to answer the following research questions:

1) To what extent does participation in a professional development intervention grounded in the philosophy of Universal Design for Learning impact general education teachers’ perceptions of the placement and capabilities of students with special needs in their inclusive classroom settings?
2) To what extent does participation in professional development grounded in the Universal Design for Learning framework affect general education teachers’ pedagogy in their inclusive classroom settings?

Philosophical Orientation

I have always believed it is essential that we do our part to improve society, and my study aimed to do that. The overarching aim of my qualitative intervention research study was to improve the education of students with special needs through improving their teachers’ instructional knowledge and practice of how best to support students with special needs in inclusive classroom settings. A focus on change for this often marginalized group of students best matches a transformational worldview which “contains an action agenda for reform that
may change lives of the participants, the institutions in which individuals work or live, and the researcher’s life” (Creswell, 2014, p. 9).

**Overview of the Research Design**

I sought to extend understandings of the state of inclusion education at the middle school level beyond descriptions of the contexts and to understand the impact of an intervention model on the teaching in inclusion classes. While this focus may argue for a quantitative approach, measuring behaviors and outcomes before the intervention and comparing those measures after the intervention, I believe that changes in perspective and behaviors are, particularly at early stages of inquiry, more likely to be better documented and understood through qualitative data collection and analysis. The experiences of the teachers was more richly captured through meticulous and consistent documentation of teacher perceptions and in descriptions of what occurred in the participating teachers’ classrooms throughout the study. Such detail assisted in supporting and validating my findings (Creswell, 2014).

Before the initiation of the study, I conducted a focus group to gather information from middle school general education teachers who had students with active IEPs. This focus group queried teachers about the elements of their classroom settings, the structure of the middle school inclusion programs they were involved in, and the amount and type of inclusion training provided and desired by the general education teachers in them. This data later informed comparisons among teachers. It was hoped that this focus group would have the additional purpose of generating interest in the current participants, in participating in the intervention study. However, that did not happen.

For this qualitative intervention research study, three middle school teachers at the same middle schools in the target district volunteered. Ideally, this could mean collaboration could
take place during the study and be sustained beyond it. Active collaboration among teachers is one element of successful, sustained professional development (Hargreaves, 2007; McDonald, 2012; McLeskey & Waldron, 2002). Coincidentally, the three volunteer teachers came from the same middle school as the focus group teachers.

For the study volunteers, it was important to establish a trusting, caring relationship among this group because these teachers would be trained together, trying out research-based strategies and reflecting on their practices and how they would be using these strategies with both students with and without special needs. I facilitated such a relationship by establishing norms up front with the group of teachers, regarding the value of respecting each person’s voice, listening to their needs and by respecting their content area expertise. Further, I emphasized that I was not acting in an evaluative capacity and that I was just as interested in learning from them as we collaborated on applying UDL principles and better teach all the students in our inclusive settings. I also emphasized that our discussions were confidential and that I would be giving each of them a pseudonym (list to be kept separate from any documentation) to attach to any of their work samples, journal entries, and comments. In interviews, observation and the group training session, the teachers would need to feel comfortable and safe enough to discuss their experiences honestly. It is through the quality of our work that we discovered what works best with our population of middle school students in the inclusive settings in the target district.

To determine the findings for this proposed study, I analyzed the specific results from teacher interviews, group training notes, and pre- and post-observations and through a process of induction, determined what common themes and changes were noted in the teachers’ attitudes and strategies. I triangulated the sources of data to build a comprehensive understanding of the impact of the intervention on teacher pedagogy. Although these qualitative findings are not
generalizable to the entire population of general education teachers in inclusive settings, they could help inform future training and support of this population in the target district.

**Data Collection Methods and Data Analysis**

The goal of the focus group was to gather information about the amount and type of training, experience, and support general education teachers who are currently teaching in an inclusive setting had received. The purpose of this information was to better understand the current status of these teachers and to help answer the question why they believe more professional development was needed. The value of the focus group data was to establish if the middle school teachers in this district report inclusion in their classrooms, the type of inclusion and support they had, and a similar need for training.

One focus group was organized from one middle school with the assistance of the Director of Special Education and one onsite RSP teacher. The discussion from the groups gave a picture of middle school general education teachers in inclusion settings. The focus group meetings introduced the study to the teachers, and provided them with some background about me, as a teaching professional.

While most writers suggest it is preferable that the participants in a focus group be strangers (Merriam, 2009), it was relevant to understand how one individual school organized its program. It was interesting, however, that since the teachers were from different content areas and taught different grade levels, there was quite a bit of difference among their programs. This led to comparisons about and concerns over the details of the program.

After the focus group, I contacted all three of the participants by email with more details of the study and a tentative timeline. Unfortunately, none chose to participate further, and other complications arose. These difficulties are documented in Chapter Four.
Finally, after a second set of flyers were placed in the mailboxes of every teacher at each of the seven schools which served grades 6-8, one teacher reached out to volunteer. She was able to recruit two more teachers at her school site. A date and time for an initial interview was arranged with each teacher by phone.

At our initial meetings, I described the study and answered any questions the teachers had. Each chose voluntarily to sign the consent form. After that was signed, I conducted our first interviews. Each focused on the teacher’s description of her past and current classroom practices and attitudes related to inclusion. I also shared with them the UDL observation tool.

After the interviews, I was able to arrange observations for each of the teachers for the same date since the I was observing the teachers during different periods. The first observation was used to establish a baseline, indicating how many markers of UDL were already in place, to compare with future observations.

After the first observation, the first training was set. Since this district often had a shortage of substitute teachers and having a substitute necessitates extra work on the part of the teacher, this training was done on a Saturday, and the time was compensated by the district. The training began with teachers reflecting on the lesson I observed and the UDL principles. Then we reviewed the objectives of the training. These objectives were for the teachers to be able to identify and describe the three principles of Universal Design for Learning, to explain the differences between UDL and Differentiated Instruction, and to apply the guidelines and checkpoints from at least one principle of UDL.

Using a few cartoons to prompt discussion of the “one-size-fits-all” education, we discussed their reflections and how they planned for and demonstrated accommodations and how they demonstrated principles of UDL. We read an article to understand what UDL is and
discussed the main points they understood from it. Next using a combination of video clips and examples, I explained the principles of UDL and the rationale behind it. I provided examples of each principle that others and I have used. Then the teachers were asked to design a future lesson with one of the principles in mind. Once they chose a principle, they were asked to review its guidelines and checkpoints and apply appropriate materials and strategies to best meet one of the guidelines. We discussed how in the planning, they were demonstrating UDL by being proactive in maximizing access in the lesson and removing barriers for all students rather than demonstrating differentiation which is being reactive to accommodate specific students’ needs.

After the first training, a date and time was agreed upon for my observation of that UDL enhanced lesson. Teachers were asked to provide a lesson plan before this second observation. Finally, a second interview was completed.

**Observations**

The aim of the classroom observations was (1) to have evidence of teacher behavior before and after the intervention of training, practice and reflection and (2) to be able to distinguish between espoused theory and theories-in-use or, in essence, to compare teacher beliefs about and reports of practice with actual teacher practice. The first observations were scheduled after the first interview but before the training session. The second observation was scheduled after the UDL training. For both, the same UDL Observation – Evidence Chart was used (see Appendices). This observation checklist is based on the UDL principles, guidelines and checkpoints and had space for the observer to note evidence of any of the checkpoints. Each participating teacher was given a copy of the checklist in advance but asked not to do anything out of the ordinary for the first observation. I emphasized the importance of
authenticity and honesty for the process to help themselves and the program.

**Site and Population**

The research site was a K-12 unified school district in a suburban area of Los Angeles County. Thirty schools served over 30,000 students from nine cities. Of these 30 schools, six were intermediate schools serving students in grades six to eight, and one school served students in kindergarten to grade eight. In grades six to eight, approximately 10% of the students were enrolled in special education, 724 out of 7109 (California Department of Education). Data were not available describing these students’ specific placement.

My research population was middle school general education teachers in inclusive settings. There are many reasons why this population is significant. Primarily, this group of teachers is significant because they are experienced in teaching a challenging population of students. Research shows that middle-school age population or adolescence is a challenging time because of physical and emotional change (Chung et al., 1998; Crockett, 1995; Zascavage & Winterman, 2009). It is also the first time that these students move away from having one teacher for the entire day. Their new realities often include multiple subjects, taught by multiple teachers, in multiple locations, with a larger number of students, and a new awareness of self-image and of others (Chung et al., 1998). Secondly, while many studies have shown that general education teachers placed in inclusive settings feel the need for additional training and support, the added challenges of this middle school population make this them unique.

In addition, another unique condition in the target district was that middle school teachers were not allotted a preparation period. All middle school teachers taught six periods, breaking only for a 15-minute nutrition recess and a 30 or 35 minute lunch. In contrast, high school teachers in the same district taught only five periods a day and had a morning recess, lunch and a
preparation period in which collaborating with the special education teacher or support staff could occur. Without a preparation period, planning in the middle schools between the general education and special education teacher was often difficult to organize. Collaboration time could only occur before or after school, which is also the time in which IEP meetings occur. Thus, collaboration time was limited, making it more likely that the general education teacher would be responsible for the majority or all of the planning, instructing and assessing of the students with special needs.

**Access and Role**

I first gained access to my population by meeting with district personnel from the target district. An MOU was signed between the district and me as the researcher. I was able to organize one focus group to get a description of who this population is, their situation and supports, and tap into their desire to do a better job in teaching all of their students and to get more support in and training about inclusive settings. When I accomplish the latter, I asked for volunteers from this focus group to participate in my study. When that did not work out, I used various methods of recruitment including direct and indirect emails as well as flyers to every middle school teacher in the target district. The difficulties and strategies to overcome them in recruitment are documented in Chapter Four.

My role was as a participant observer. Not only did I participate as a middle school general education teacher with extensive experience teaching in an inclusive setting, I was also open about my role as an observer and learner with the volunteers. I made clear that I was not serving in an evaluative role for the district or school administrators. Instead, my goal was to investigate if training on the principles of UDL was useful and what impact it did or did not make on teachers’ perspectives and teaching practices. Since, teacher participants could have
been from a variety of content areas, the focus was on literacy since according to the California Common Core Standards, “The Standards insist that instruction in reading, writing, speaking, listening and language be a shared responsibility within the school” (California Department of Education, 2013, p. 3).

I was not able to guarantee anonymity since I needed to submit paperwork for the participating teachers to be paid a district stipend. I did, however, protect their confidentiality by referring to each by pseudonyms rather than their actual names. All of their data was labeled with their pseudonyms and was available for each participant to check for accuracy.

**Credibility**

To ensure my credibility, I needed to closely monitor my bias, especially my bias for inclusion. I did that by listing positive, negative, and neutral possible responses so that I would be open to hearing all sides and not just with what I agree. I used member checks by asking participants to review what they said in meetings and correct the transcripts as necessary. In most cases, I also used full and direct quotations rather than my paraphrasing or truncating.

There was a possibility of reactivity, especially if the participants had worked with me in previous trainings. They might have tried to present a more positive picture than what existed. To overcome that, I encouraged all participants to be frank in their comments rather than providing information they perceive to be the “right answer.” Furthermore, our roles were more collaborative than hierarchical to encourage more open dialogue, reflection, and productive problem-solving. Also, to reduce reactivity in the classroom, I discussed with the participants how to discuss/introduce my presence in class so as to reduce the anxiety of the participants, in-class support staff, and students. While I was in classrooms, I stayed in the background, as an observer, rather than as a participant observer. My aim was to convey that I was there not to
intervene but to observe and document what I saw based on a the UDL Observation – Evidence Chart that they had in advance.

By nature of the short study period and limits preferred by the district, my targeted sample size of three to five teachers was relatively small; however, I did try to draw from all the general education teachers who have students with special needs from the middle school. As it turned out, though, all teachers from the focus group and the study all came from the same middle school.

In light of these limitations, I compensated for the small sample with rich, detailed and concrete descriptions, and direct quotations. Data was triangulated among the focus group, interviews, observations, field notes, and notes from the group discussions during the training session to find areas of agreement and determine any contradictions. I acknowledged the limitations to generalizability. Data gathered was descriptive, acknowledging positive, negative, and neutral results.

**Ethical Issues**

As with all studies involving people and their jobs, the risks they may face must be managed. Although the district agreed to support the study by paying for substitutes or stipends and the participants were be identified as a group, the particular information gathered—positive, negative, and neutral—from each participant was kept confidential through the use of pseudonyms. Participants completed consent forms that clearly reminded them that their participation was voluntary and they could end their participation at any time.

Another concern was confidentiality of what was shared in front of the group. I kept the information I gathered confidential through the use of pseudonyms and shared the information with the same pseudonyms. However, since I have no control of what others in the group do or
say outside of our group meeting, I was clear that they needed to keep our conversations confidential (i.e. invoked the “Las Vegas” rule: what happens in group, stays in the group).

In addition, I met with the school principal of the teachers in the study to share the district MOU as well as made clear that my position was that of researcher and not an evaluator and that all information I gained would not be shared with him. I informed the principal that the study included observations of the participating teachers, and that this was not an evaluative process of individual teachers or programs but an investigation of what is needed and what can work. I shared the UDL Observation – Evidence Chart, a list of the participating teachers and the dates I would be on campus for observations.

It was my hope that both the school and teachers benefitted from the teachers’ participation in this study. I hope the teachers gained new perspectives and strategies that will increase their sense of competence and ability to reach a diverse group of learners. This study gave the participants time and space to collaborate, reflect and improve upon their practice and possibly improving the amount of training and support they and other general education teachers receive in the future. However, I must acknowledge that although I anticipated a positive and supportive outcome, a possible repercussion of this study is an increase in the amount of training or pressure on the general education teacher to change their instruction and curriculum.

Once all my data were collected, I kept the original records and copies in separate locations in a locked file cabinet. While there was a master list of participants and their pseudonyms, this list stayed separate from all the written documents and notes. Participants were told that the information would become my intellectual property and their acknowledgement of this was indicated on the consent form.
In analyzing my results, I did not feel pressure to shape the results to reach specific findings. Furthermore, I believe that the process itself was important, and I documented it to the best of my ability in Chapter Four.
Chapter Four – Results and Findings

This chapter details the results of data analysis and reports findings in relation to the research questions for this study. Data were collected from interviews and observations of three middle school General Education (GenEd) teachers who had students with special needs, in particular, RSP (Resource Specialist Program) students included in their classes. Through this research effort, I was able to gain an understanding of how they viewed, prepared for, and addressed the needs of this group of students within their classes. My approach was used to explore the experiences of these teachers and find out how they would incorporate the principles of Universal Design for Learning to better meet the needs of their diverse learners. The findings in this chapter address the following research questions:

3) To what extent does participation in a professional development intervention grounded in the philosophy of Universal Design for Learning impact general education teachers’ perceptions of the placement and capabilities of students with special needs in their inclusive classroom settings?

4) To what extent does participation in professional development grounded in the Universal Design for Learning framework affect general education teacher pedagogy in the inclusive education setting?

In what follows, I describe the results of this dissertation inquiry. This chapter is presented chronologically with analysis of each stage of the inquiry and is divided into seven parts. First, I provide a description of the challenges in the field I found when seeking to establish a research context and recruit research participants. Second, I present what was shared in the first interviews and compare the teachers’ philosophies. Third, I describe what I observed in their classes and compare it to information from their first interviews. Fourth, I summarize the UDL training I provided and what the teachers’ takeaways were from it. Fifth, I describe what I observed in their classes and how they interpreted and implemented selected UDL (Universal
Design for Learning) principals and guidelines. Sixth, I analyze what they shared in their follow-up interviews. Finally, I summarize my findings in relation to the research questions.

**Section One: District Support and Recruitment of Participants**

In January 2014, I had a preliminary meeting with the Deputy Superintendent of my target district. We discussed my background in education and with teaching in inclusion settings and discussed the need for professional training for General Education (GenEd) teachers. He offered the support of the district and asked for more details of the study. With more details and a proposed number of participants and hours, we signed the first MOU.

Thus, with the support of my target district, I moved forward to recruit participants. After an introduction by the Deputy Superintendent at a training of intermediate Language Arts teachers, I briefly described my study and passed out my contact information. Unfortunately, only one teacher contacted me, and she did not have any RSP students in her classes. I hoped that sending out a survey would net more participants. However, district personnel and I could not come to an agreement about how to do this in terms of sending a survey out to every middle school teacher or to only those GenEd teachers who had RSP students in their classes for which there was no list. Clearly a different method of recruitment would be needed.

After the Deputy Superintendent retired, my new contacts were the new Director of Special Education and the Director of State and Federal Programs. The former recommended that I go through the Special Education (SpEd) teachers and the latter was instrumental in finding the actual funding for the participants. The funding was subsequently approved by the target district’s Board of Education. Therefore, my next recruitment was to go through the SpEd teachers and ask them to forward information to the GenEd Teachers they worked with for a focus group and possibly for additional training.
Focus Group

Only three teachers signed up for the focus group. They all came from the same middle school and worked with the same RSP Teacher.

They all agreed to meet at my school site after school. FG1 taught 6th Grade ELA and PE. FG2 taught 6th and 8th Grade Social Studies. FG3 taught 6th and 8th Grade Mathematics. They shared the same nine 6th Grade RSP students. FG2 answered that her students “are my students and her students, yes.” FG1 said, “We’re the team, actually.” They all agreed that they had no input in how the RSP students were placed in their classrooms and that they were placed with lower level students. FG3 explained, “They never asked us. Most of the students, they have the special need, those kids, they’re put in the lower class.” FG2 agreed and said, “It seems like they’re all together, the lower performing students, academically performing students.”

In relation to research question one, they believed their RSP students to be capable and did not agree with the school’s practice of placing the RSP students with “lower performing students.” This practice reflects the medical model where these students are seen as deficient and in need of remediation and intervention with lower scoring students.

Two of the veteran teachers in the focus group seem to already be using elements of the Universal Design for Learning (UDL) framework. FG2 reported, “I scaffold so everybody gets it…I try to be inclusive, like maybe a small historical clip in a format that I think everybody is going to get. I do a lot of vocabulary development and concept development.” FG1 replied, “Yeah, very similar. Audio. I try to reach them through different modalities. Maybe we work at different paces.” This means they were both providing UDL in both engagement and representation. It also shows planning with inclusion in mind not just for the identified RSP students but other students who might also be struggling.
It was interesting to also note that they varied in the amount of support they received. The RSP Teacher was in the 6th Grade ELA class four days a week, in the Math class for 10-15 minutes, and never in the Social Studies classes. In the 6th Grade ELA class, the RSP Teacher also pulled out the RSP and some other students once a week for 45 minutes with a high interest, lower reading level novel. This supports the research that the GenEd teacher is often primarily in charge of curriculum and instruction for all the students.

Recruitment

Unfortunately, only one of these teachers was interested in additional training but she did not follow up with me. The other two did not answer my follow-up emails. Additional outreach to other sites did not net any additional participants. One SpEd teacher replied, “The sense of community is not felt around here with administration issues. Teachers are refusing to do any extra. For that I am sorry. And, with all the district issues in the forefront I doubt any will help.” Another replied, “Budget cuts are on the minds of everyone right now. It is a stressful time here.” In fact, by March 2017, pink slips were sent out to 235 teachers, 89 support staff workers, and 9 administrators.

Two other SpEd teachers replied that they do very little to no collaboration with the GenEd teacher. One pulled out the RSP students for reading. I did, however, reach out to all of the teachers who were identified by the SpEd teachers. Most did not respond. However, those that did respond declined once they saw the time commitment involved in the study.

My next recruitment was for beginning teachers or teachers who were new to inclusion. The reason for this focus was that two of the veteran teachers in the focus group appeared already to be using the Universal Design for Learning (UDL) framework and that teachers new
to inclusion may not have the same depth of strategies to meet the needs of the students with special needs.

To reach new teachers, I contacted district personnel who oversaw new teachers. I received some interest from two new science teachers but they soon realized that they were too busy and unable to participate.

I next received permission to put flyers in all the teachers’ mailboxes of six schools which included grades 6-8. I had three interested, but they ultimately decided against participating in training. Again, the time commitment was the issue.

I went back to my Chair and asked if I could streamline the study to encourage more participation. She agreed, and I amended my study with IRB. The study, as described in Chapter Three, would include two interviews, two observations, and one training session. In February 2018, I sent out a flyer again. At one school, the principal suggested I write a personal note on several of the flyers. It was at this school, I got one participant who was able to recruit two other teachers at that school to participate in the study. Interestingly, these three teachers were also from the same school as the focus group participants.

Section Two: First Interviews

The three teachers have all been in education for 20 years. One teacher was an 8th Grade Language Arts and Social Studies teacher who taught these subjects in three two-period blocks, one was a 7th Grade Language Arts and Social Studies teacher who also taught these subjects in three two-period blocks, and the third was a 6th Grade teacher who taught Language Arts and Physical Education in single periods. We selected one 8th grade block (periods 5-6), one 7th grade block in the middle of the day (periods 3-4) and one 6th grade language arts class in the morning (period 1) as our foci. Each of those classes included RSP students in them.
Each teacher reported and accepted that the RSP students were spread among the Language Arts teachers. Echoing the focus group teachers, two of the teachers shared that this placement was done without input by the teachers. The third teacher was unsure because she transferred to the school after the classes had begun. One teacher expressed dissatisfaction with how the RSP students were placed only with lower language ability students. She explained,

“…just because they are RSP does not necessarily mean that they need to be in a reading intervention class when their language arts is fine. They should be in a high-functioning class and receiving support only in math where they need to be. So I feel it is not well-designed.”

This complaint was also shared by the focus group teachers. So again, there did not seem to be a belief that the RSP students were not capable of making progress and learning. It is interesting to note that this teacher saw that some students needed support only in one curricular area, such as math, but were placed in a this lower, intervention Language Arts class. This also reflect a medical model mindset by identifying the deficiency in the student as a whole.

Although there was one RSP teacher for each grade level, the three varied in the amount and type of support from Special Education personnel. The RSP teacher supported students in periods 1 and 2 Monday through Thursday for the 6th grade teacher’s classes. Her classroom was adjoining this 6th grade classroom with a shared interior door. This arrangement allowed the RSP teacher to pull out struggling students. However, the 7th and 8th grade teachers reported much less in-class support by the RSP teacher. The 8th grade teacher reported that an instructional aide supported students period 6 every day, even though she has RSP students in each block. The 7th grade teacher could not articulate a specific schedule for either the RSP teacher or an instructional aide since the RSP teacher was shared with another campus. At that time, the RSP teacher would work directly with RSP students “whenever he was here.” She hoped that would improve with the hiring of an RSP teacher full time for 7th grade. The plan
would be that that full-time teacher would work with a specific group and pull out two specific students. Both the 7th and 8th grade teachers expressed their frustration about the amount of support they received. The 8th grade teacher explained,

Well, in theory, he should be coming around and helping, as far as my understanding as collaboration, he’s supposed to come in and basically do what I’m doing. To begin with, planning, so he knows what’s being the topic at hand, and front-loading me with strategies, I think he’s supposed to be modifying the curriculum. So I don’t get that support.

And

When he came into the classroom, it was more like observational, with his arms crossed and just leaning over. I would ask him, can you sit with the student and can you have him retell you the story orally? We can record it, I have a tape recorder, and then I can listen to it and I can assess it. He said, “Well, I’m doing observation.” And I said “Well, you know, observation is not instruction, and it’s just that, it’s observation.”

In addition, the 7th grade teacher mentioned that an RSP teacher’s in-class time is limited because he is also responsible for testing students, as well as preparing, monitoring, and meeting for IEPs. “Well, since it hasn’t been set [schedule], we try different things. Then it falls apart because the consistency just isn’t there with him having to do a whole IEP report or heading to the triennials. It just falls apart.”

Each teacher reported that while they did get information about each of their RSP students within the first month of the school year, they did not spend time discussing the students or planning with their respective RSP teachers, leaving the instruction and any accommodations and modifications to them. The 7th grade teacher said when she works with the RSP teacher, “mostly it happens right when they come in or right as they’re leaving” and “Then we just quickly discuss, it’s not planned out fully.” The 6th and 8th grade teacher agreed that they had no opportunities to sit and plan with their respective RSP teachers. However, the 6th grade teacher reported that they do discuss students’ follow-up on their work. She said, “…often times they would say ‘Oh she [SpEd teacher] has the assignment.’ When we start to find, ‘Okay, wait a
minute.’ Sometimes they’re not being truthful, so we collaborate a lot in that regard. As far as
lesson planning, no.”

Both the 7th and 8th grade teachers were dissatisfied with the level of participation of the
Special Education teachers in the PLC (Professional Learning Community) monthly meetings.
Participation was seen as important as the 8th grade teacher described, “…he had to sit in on our
PLCs. That way he knew what unit of study we were on.” The 7th grade teacher said her RSP
teacher attended “very few times.” While the 8th grade teacher remarked more on the quality of
the RSP teacher’s participation, “He was supposed to offer us strategies. Because in our PLCs
we have to come up with the strategies, reteaching, and then the modification of the strategies.
In theory, he was supposed to plan with us and offer us information, and he really didn’t.” She
continued, “Basically, in a good, perfect world, he would be part of the PLC, come with his own
student samples, and say this is what I was able to get this student to produce. I’m gonna try and
reteach. I’m gonna modify the strategies…” These remarks emphasize that the responsibility for
instruction and curriculum lay with the GenEd teacher. It also supports the research that the
GenEd teachers believe the SpEd teacher has specialized knowledge of strategies to best teach
the SpEd students.

In describing their classes, the teachers explained how the ability grouping, placing the
RSP student with lower ability students (as measured by the state test) affected their students.
The 8th Grade teacher acknowledged that the data was not usually positive and made it a point to
tell the child and parents to look beyond the data. She said, “The data is dismal and to me that’s
just punitive for the child to sit and listen to, as well as for the parent. It really, at the end of the
day, means nothing other than just really it’s brow-beating the numbers.” Her comments are
reminiscent of the criticism of the medical model. She would like to get beyond the data and see
the student. Unfortunately, at this school, academic data such as grades had been used to limit access to special activities such as field trips. The 7th Grade teacher described the situation:

They go out on special field trips for kids who are very capable. They give them all this discount. Then here are my RSP students who are always going to get C’s. So they don’t get to do any of that or they have to pay… So there are some classes, they’ll have like, everybody went. Then here I am, and all the intervention teachers, and all the RSP teachers, we’re here with all of our kids, which we’re fine. We love our kids…Then it’s like, ‘How come they get to go? Why should I even try.’

Thus, the students’ perceived lower ability was made obvious, and served more to discourage and demoralize than to motivate. This could have lead to what the 6th Grade teacher sees as “an issue with their confidence.”

With these considerations in mind, these three teachers commented how this affected their planning. The 6th Grade teacher stated, “[What] I see my RSP students struggling with is the rigor, the vocabulary. They get tired a lot faster than other students…Their endurance and stamina to read is not as strong.” The 7th Grade teacher said, “So the pace is going to be slower. I do want to have like shorter steps on learning the process of reciprocal teaching in choosing one piece at time rather than show the video…It’s very difficult to let go and be independent. As much as I really want to and I’ve tried it, when I look at the work, I’m like, ‘Aw.’” The 8th grade teacher prepared modified materials and created groups carefully. She explained,

Usually I do whole class instruction, a quick whole class instruction. Then I release them to work on their own, and then I go to that one student. I used to have larger groups, but I find that I can pull up next to the two desks a little easier. Then I can go ahead and modify per location…That way it’s better, because it’s individualized and it’s not really calling out in front of the whole class.

For the most part, the teachers were reacting within the mindset of the medical model and adjusting their planning based on the deficits of the student. While they acknowledge the unfairness of the system and share their frustrations, they do not challenge the system.
Section Three: First Observations

In my first observations of the three classes, I noted a difference in physical configuration (see Appendices for classroom floor plans) and focus. All classes appeared to have assigned seating but there was more variety and movement in the 7th and 8th grade classes. The 6th grade class was in the school’s main two-story building, and the desks were organized into three long horizontal rows all facing the front of the classroom where the teacher was set up with a DocCam and LCD projector. From the teacher’s perspective, RSP students were placed on the right side of the classroom closest to the door leading to the RSP teacher’s classroom. The 6th grade teacher said it was requested by the RSP teacher to make it easier for the RSP teacher to work with them and, as needed, take them to her room next door.

The 8th grade class was in a stand-alone bungalow. Inside, there were tables organized in groups of 4 as well as picnic tables just outside the single door. The 7th Grade class was in what appeared to be a double portable classroom. There was a variety of seating options with tables in groups of 6 and individual tables as well as a group table in addition to picnic tables just outside one of the two doors. In addition, there was an area with 3-4 soft living room suitable chairs facing one another near the teacher’s left. In both the 7th and 8th grade classes, RSP students were scattered among the rest of the GenEd students.

The three classes also varied in the level of teacher direction with the 6th grade class having the highest level of teacher direction and talk with the 7th and 8th grade classes having more student talk and interaction. The 6th grade class is Language Arts only while the 7th and 8th grade classes are block classes of two periods, Language Arts and Social Studies. The 6th grade teacher did not send a written lesson plan and told me she followed the RACES strategy while the 7th and 8th grade teacher sent lesson plans that listed the topics and tasks for that day.
In my first observation of the 6th Grade class, the students file in and sit at their seats. After the bell, the teacher passes out papers to some of the students and tells them they will be working on an argumentative debate today. To start, the teacher asks the students to clear their desks then reviews the article they have read a few times and annotated by circling unknown words, putting stars for important facts and question marks for “I don’t know.” She reviews the circled words and asks students what each meant. One student shares the meaning and then the teacher calls on another student for the next word. The teacher tells the students to circle as many as they need to and define at least five. Then the teacher shows a T-chart and reviews that the left is yes and the right is no. The teacher mentions that they will use the RACES strategy and reviews what it is.

In our initial interview, she said RACES is a consistent strategy they use throughout the year. It is an acronym for the content of their paragraphs. They will Restate the question, Answer the question, Cite evidence to support their answer, Explain their evidence, and Summarize the paragraph.

The teacher says some students will need to fix and revise their paragraphs. The teacher asks for a show of hands of who is on their first paragraph and then who is on their second paragraph. Then she projects a student example on the DocCam (Document Camera) and points out that the most important part is the “C, cite the text.” She asks why it is the hardest and answers herself that “you need to choose the right citation.” She directs, “eyes up here, pencils down.” The teacher shows the citation used in the student example and asks if the citation supports the answer. The teacher shows the appropriate citation to support the answer. She

5 Note that all descriptions of the observations will be in present tense to better capture what was happening as it happened.
comments that the student is on the right track and “that is what you need to check.” The teacher then points out the transition word and use of precise language, “teenager instead of people.”

She next directs students to write “two solid paragraphs that follows RACES,” and passes out the rest of the papers. She tells them she wants one paragraph on each side and corrected version on the bottom. She then directs the students to switch papers and write c/b and the reason. As the teacher walks among the students, she asks if anyone needs a RACES paper, checks if papers are being switched, and tells students to underline or highlight the citation so she could see it in the paragraph. She checks in with one student who had been absent for a week and tells him to work on the annotations and that she would come back to check on him. She helps an RSP student switch his paper. The teacher says aloud, “We do not start a sentence with ‘because.’ ‘Yes’ and ‘no’ are not in the paragraph. ‘I think,’ ‘I believe’ are not. You are making a statement. No ‘because’ in the first sentence.” She also tells the students aloud that the question must be addressed in the first sentence. She goes back to the front and said, “I’ll show the chart again.” She highlights the question. She stays up at the front to complete the attendance scantron as the students continue to work.

She then says aloud, “When you turn this in at the door, you’re telling me it’s your best work.” With only a few minutes left, she opens the door. She reminds a few students to write their name, date, and period, and watch capitalization. At the bell, the teacher tells the students to clean up and says, “I’ll be at the door.” She tells one student he has annotation for homework and the first paragraph. She directs the students to leave the RACES paper at their tables. Students stand behind their chairs and are excused by row. Students hand in their paper and article to the teacher unless they are taking it for homework.
In my first observation of the 7th grade class, the students waited outside and are invited in by the teacher. The teacher starts with reminders and a review. Hands are up and there is talking among the students. The teacher gets volunteers for reading. A student asks if they watch a video every day. The teacher responds, “Not every day.” The teacher asks for a vote. Should they read part and see part, or at the end of the book see the entire movie, or does it not matter. All students participate in voting and “does not matter wins.” The teacher tells the students to pay attention to the way they sound, in the beginning how they talk and look. She then shows a video clip from The Watsons Go to Birmingham.

Afterwards, the teacher asks two students to pass out the composition books which are held in baskets. The teacher counts down 3-2-1 and says, “I’ll give you a minute. You’ll be working in partners, so don’t worry.” She asks a question to the whole class and students call out answers. Then she calls on specific students, then allows more calling out. The teacher shows the directions on the DocCam. The teacher and student read the directions out loud together, choral style, and a student is called upon to explain what they have to do. The teacher then directs the students to write the opening of the letter. The teacher says, “Can I have hands and then you can call on others?” to get ideas for the body of the letter. With each student’s suggestion, she asks the student to explain why. The teacher reminds the students they “also have to be nice” in the letter. She moves around to check that notes are being written. She then asks students to go to their 3 o’clock appointment to talk before writing their letters, and to go to the front if their 3 o’clock partner is missing so they can partner up. The teacher says, “If I see you not working with your partner, I’ll put you by yourself. I’d rather you work with a partner.” After the students are all in groups, she instructs them to choose 3 parts, 5-10 sentences. The teacher asks, “Can you walk out of class without a letter.” About five students say no loudly.
Some students approach the teacher, and then the teacher circulates to the right side first and moves individuals to partners. Of the 25 students, three have no composition book and the center table has Spanish-speaking students. The teacher starts her own letter projected on the DocCam and gives students sentence frames. She circulates again to mark if the student has started. One student was moved to work by himself since he had not started. She calls out “gum–clean up, if chewing gum.” She then calls, “Five more minutes.” In an aside, she comments to me that that is the “probable time. How much time do I give them? Are they wasting it?” She goes back to circulating. She listens to one student and then pauses the class so that student can share out loud. Another student volunteers to read to the teacher first. The teacher asks for “somebody else? No?” She tells them they have five minutes to finish up, no more talking. She listens to the student read the letter to her. She asks out loud how many are done and about 11 hands go up. The teacher tells students to go to the next page for vocabulary. She then tells them to go back to their seats and say thank you.

The teacher shows a chart on the DocCam with conflict in the center, external on the upper left and internal on the upper right. Space for examples is underneath. She says, “I will pause for you to take notes.” She then shows the first part of a YouTube video clip on conflict. She pauses and checks if the students are taking notes. It seemed as if some students are not able to keep up with the notes. The teacher toggles between the video and the chart and adds notes and pictures. The teacher reminds them of the character of Jonas from The Giver. She then checks in with the students in the back one-on-one. She tells the class to start thinking about the book. The teacher reminds the class, “I have tutoring today–voluntary tutoring or forced.” She then tells them they can share at their tables. The class then takes a break, and she sells them pretzel sticks for their field trip.
The RSP teacher enters, checks in with one student and pulls another one out. One of the students tells me he is the TA. The teacher says, “I’ll take volunteers first, bring it up.” Students show their composition book and share out loud in front of the class. She tells them if they are done, they can have a three-minute break, walk around and talk, but if they are not done, to catch up. Students pass out the novel *The Watsons Go to Birmingham* to the class.

The teacher gets volunteer readers to go to the front side where there are the soft living room chairs they can sit on. She tells them they can stop whenever they feel comfortable, but not in the middle of a sentence or paragraph and pass the microphone. While the students are reading, the teacher goes around the classroom. If the listening student can point to where they are, she gives that student a ticket. At one point, she directs the volunteer to read the next part well.

After the bell rings, the teacher directs the students to stack the novels and composition books in the center. She checks if the area is clean and has a raffle so students gather around before being excused.

I observed the 8th Grade teacher at the end of the day. She started with the Pledge of Allegiance. She then sent out students who need to complete their SBAC test. This left 11 students. One student was chosen to pass out reading check cards. The teacher asks the students to finish reading the novel *Unbroken* to page 82. She tells students they can go outside to read and then come in when they are done or they can stay inside, too. Once all students come back in, the teacher asks them to write a summary with who, what, when, where, and how in five sentences. She tells them a test question will be in a minute. The teacher tells them they can reference the book and then asks students to check in with pairs or trios. Afterward, the teacher tells the students to write the day’s date on the reading check card and answer the one question
on it without looking at the book. She tells them the question is “Who screams and why?” She tells them to turn their card over when they are done and to put their pencils down. One student is asked to collect the cards and another one is asked to collect all the summaries even if they are in their spirals. She says “however much you have.” Both are stacked on the teacher’s desk. She then asks who knew the answer and chooses a volunteer to share out.

Next, the teacher reviews what they had already done in the history section called “New Movements.” She reminded them that they jigsawed the section and made presentations. She tells them they will now see the related video for the third time. Since they already have notes for it, they can “sit and enjoy.” The DVD is played on a television with sporadic loud, buzzing static. After the short DVD, the teacher asks the students to open their history books to pages 416-418 and tells them that most of the pictures in the video are in the textbook. *Unbroken* is stacked up and history books are handed out. A student passes out highlighters. She reminds them to “make sure you have a ‘withdrawn’ textbook so we can interact with the text. The teacher says, “Let’s look at vocabulary.” She reminds the class that this was their third read. In a quick pace, she asks questions and gets answers from the class. She asks about the root word for abolitionist and writes the words abolition and abolish on the white board. She asks who speaks Spanish and if it is a cognate. The teacher directs the students to take out a pen and write in the margin of the book. She passes out pens. She tells them to write the word abolish, to completely end. She then calls on one student to read the paragraph aloud. Afterwards, she asks what was important to highlight. She asks who the president of the anti-slavery society was. She gets the answer Benjamin Franklin and says that he is the who. She asks what state, what year and directs them to highlight it. Then she asks what cause is supported.
The teacher instructs the student to go to the next paragraph with a partner reading and the other highlighting and then to the next paragraphs. While the partners are working, the teacher collects *Unbroken* off the tables and checks in with the pairs.

Next, she asks the students to stand up and pick a side. She asks them, “What were slaves? Remember the video we saw on slave ships. Remember we talked about Lincoln. Are you an abolitionist or anti-slavery?” Students move around. She creates a T-chart on the whiteboard and some students go back to re-read the text. As the teacher asks questions and says the anti-slavery side is “trying to break the slaves out” and the abolitionists side is “trying to end slavery.” Some students are switching sides. The teacher tells them they need to know how they feel. She tells them to explain their side and what they think they would be doing. She reminds them, “We saw a video.” Students are not talking, possibly confused, so she says, “Okay, I’m anti-homework. What should I be doing? I feel it is wrong, but I’m not going to do anything. OR I take [picks up a student’s folder] like an abolitionist working to end slavery.”

She sends the students back to their seats. She says, “Let’s look at pictures.” She asks them to read the caption on page 417. She asks the students to raise their hand, anti-slavery or abolitionist. She directs them to the next page to the caption about Harriet Tubman and then to page 421, the caption about Sojourner Truth. The teacher says, “Let’s all say abolitionists.” She next asks them to read the poster and asks, “Is this poster in favor or against?” She asks them to take out their spiral notebook and says, “We’re creating a double-bubble.” She then draws a Venn Diagram on the whiteboard with abolitionist on one side and anti-slavery on the other. She asks them, “Go through the same pages, skim them. We’ve already read them, highlighted, transfer them to the chart.” She tells them to add the people, what they did, and the year. She
checks in with the pairs. She added the definition of the anti-slavery side. She reminds them if it is not in their spiral, to write their name on their paper.

Near the end of class, the teacher asks a student to pick up highlighters, another to pick up papers, and a third to pick up books. Afterwards, she asks the students to sit outside and wait for the bell.

In comparison to what was shared in their interviews, there was the notable absence of support by SpEd personnel in two of the classes. The RSP teacher was not present in the 6th grade class, nor was there an Instructional Aide in the 8th grade class. As for instruction, the 6th grade teacher did use the RACES strategy to frame the students’ work. The 7th grade teacher lead the students directly through short steps but did present and transition at a relatively quick pace. The 8th grade teacher did not have a whole class instruction first but that could have been due to having most of her class sent out for testing. She did have them work independently first, then had a whole group lesson, and in a small pairs and was able to check in with them.

Section Four: Training in Universal Design for Learning

Following all the first observations and several rounds of dates, a Saturday morning was selected for training on Universal Design for Learning (UDL). Unfortunately, a four-hour training on a Saturday morning was reduced to two hours based on limitations of all the teachers and an emergency for one of the teachers. Our objectives were that the teachers be able to identify and describe the three principals of UDL, to explain the difference between UDL and Differentiated Instruction, and to apply guidelines from at least one of the principles of UDL.

Teachers were asked to complete a Reflection and Self-Assessment for themselves. Each teacher was given a notebook with materials on UDL. Using cartoons to highlight the inequity in a one-size-fits-all education, we discussed the rationale for Universal Design for Learning. A
video describing the principals of UDL and how it was developed was shown. We discussed what they and I noticed in their own classes. For the 6th Grade teacher, under Engagement she “minimized threats and distractions” by speaking with students individually and making adjustments as needed and by having them all face forward. Under Representation, she presented information visually with the DocCam and clarified vocabulary and text structure.

For the 7th Grade teacher, under Engagement, she minimized threats for the Spanish-speaking students by placing them in a group with other Spanish-speakers and has some students read their answers to her before sharing them out loud to the class and “fosters collaboration and community” with pairs and groups and support of a class field trip. Under Representation, she provided information visually, DocCam and film clip, and with audio support with the film clip and students reading the novel out loud; she clarified vocabulary and used symbols as well as a video clip; and help them visualize the information with a T-chart. Under Action and Expression, she provided levels of support with sentence frames.

For the 8th Grade teacher, under Engagement, she gave them a choice of working inside or outside; “fostered collaboration” with pair and trio groupings; and developed self-assessment by asking them to take a stand. Under Representation, she presented the information in text, picture, audio and video, clarified vocabulary and “promoted understanding across languages” by asking for cognates; and helped them process and visualize the information with a Venn Diagram. Under Action and Expression, she “varied the method for response” by having them physically stand up and choose a side.

We then read and discussed “Learning Follows Access and Engagement: A Conversation with CAST’s Allison Posey.” The article is organized into Questions and Answers. We read the first four. The central ideas they pulled from the article were 1) the environment of the
classroom needs to change to help the students show their intelligence, 2) the goal is the same but the route you get there should be flexible, 3) options that help students should be available to all students, not just those with special needs, and 4) it is important to empower students to choose what works best for them to learn.

We then looked again at the UDL Principles. For each Principle, we discussed different ways to meet its Guidelines and Checkpoints. First, for Engagement, I showed a video of how a teacher engaged her class in the importance of sensory details by inviting them to her restaurant and asking them to choose which meal they wanted and guessing what they were going to get. The students realize the choices given them were vague and misleading. They were then challenged to use more specific words in their writing. Second, for Representation, I showed them a cartoon with two children making a model, one used the step-by-step written directions while the other used a picture of the model. I shared examples of online games students could play to learn about the Constitution and how the government works. Third, for Action and Expression, I showed a video of two teachers explaining how they created a tic-tac-toe board for projects that their students could choose from to demonstrate their learning on the Industrial Revolution. These choices maximized Guideline 5 “Provide options for expression and communication” because they included technology, text, audio, visual and support from two teachers, one of which taught many of the technology skills. These choices also empowered the students to choose which projects they were most interested in and supported their completion within two weeks with daily goal setting.

Teachers were then asked to design a lesson with one of the principles in mind. The choice was theirs. We did touch upon the difference between UDL and differentiated teaching. The former looks to the teacher to be proactive in designing a lesson to maximize access to their
learners’ needs, remove barriers to their success and allows for variety in reaching their goals while the latter is reactive in accommodating an individual learner’s need, works around barriers, and desires conformity.

Section Five: Second Observations

With their second observation, my goal was to see how they implemented elements of the UDL Framework. None of the teachers submitted their lesson plans in advance. I went into their second observation with an open mind to see which principle was their focus and what checkpoints they would hit. Based on what I observed, I organized the description of what I observed with what I believe was their UDL focus.

The 6th Grade teacher continued framing her lesson with the RACES strategy. The most notable difference from the procedures of first observation to the second was the inclusion of a video to support the text and their answers. That video provides “options for perception.” In introducing the video, she says, “I’m going to do something different. Maybe kids need a little more information. I found a video. It has quite a bit of the same info.” She shows the video while she is taking roll. All students are looking forward and watching. After the video, she tells them they are not going to Orlando (a tease back to the video) and then asks them, “After we read the article, how many noticed hybrid cars?” Five hands went up, but only two for hybrid.

She reminds them as they read, they should be annotating. She checks if students have the article. She tells them that pollution should be defined and asks them to raise their hands if it is already defined. She tells them, “We need to understand the question, copy it down. In order to understand the question, we need to understand the vocabulary.” She speaks to one student, explaining pollution and smog. She emphasizes that this is “real-life” information. She goes
around the class checking. She says aloud, “Go back, re-read one more time and annotate and answer the question on the paper. That’s your ticket out.” She shows how in the first sentence they can restate the question but says they can write it their own way.

As I am sitting in the back, on the side where the RSP students are, she says to me that one student has “no motivation” and “we’ve tried and tried, even [RSP Teacher].” She says this loud enough for that student and other students nearby to hear. I nod and she moves on checking over students’ work.

At ten minutes left, she then tells the class to write a minimum of 5 sentences. She reminds them, “Remember we reviewed writing complete sentences. Check for capitalization, punctuation, spelling, grammar. This is your final RACES paragraph.” She tells students who are done to stand up behind their desks. When 11 students have stood up, she calls them to bring them up. Row by row, more students are standing up and she tells them to leave the dictionary and RACES at the desks. To the four that are left, she tells them that they can come back at Break to finish it and if they do not finish it, they will not go on tomorrow’s trip.

The 7th Grade teacher seems to have focused on the principle of Engagement and the guideline “Providing options for recruiting interest.” The opening activity emphasized relevance and authenticity to the students and the reading text provided choice.

The 7th Grade class started with the 5 minutes of mindfulness. There were several water bottles with beads in them to help them focus; she tells them they will be making their own tomorrow. Most of the lights are off. The teacher guides them in breathing and soft music is playing the background. She tells them she knows this is new to them but turn the bottle around without making noise. She reminds them to have their hands on their lap, to sit up straight, relax for one full minute and focus on breathing fresh air.
She transitions, maintaining the quiet voice from the mindfulness opening activity. She sends some students out to turn in their textbooks. One student goes to check in with the RSP teacher. She asks the students to write at least 10 affirmations that they will decorate with watercolors as “something to take with you.” She tells them they will have 10 minutes to write it “super neat.” While they are writing, she sells pretzels (as previously explained this money will help fund their field trip). She asks two students to pass out books. She says aloud to a student question, “However you want to do it. You saw my samples.” About 50% of the students are interacting with another student.

Next, a student passes out discussion questions and a lined sheet of paper. The teacher asks students to turn to page 41 in *Freak the Mighty*. Three of the students have a different book, *Chew on This* and are directed to write their own notes; they move to the picnic tables outside. The teacher asks students to read Question 1 out loud together, and then directs them to write notes about the first question. The teacher stops by one student’s desk and asks “Are you particularly with us today? Sit up.” The teacher tells them to write quick notes; not their final answer. Next, she says, “Let’s go on to number 2.” The students read it out loud, then one student is called upon. The teacher reminds them to just write notes on what they remember.

The teacher sets up paper on the DocCam/LCD to guide their discussion. It is set up similar to Cornell notes, with Prediction, Subtitle, Dinosaur Brain and Previous Chapter as key words in the left margin. “Let’s review what we’ve read so far.” One student called out “fireworks show.” The teacher walks around to see if notes were written. She reminds students to sit up and read out loud chorally. Then she asks students to talk at their table about the notes she set up at the DocCam. She calls for “volunteers, please,” and tells the first table that they need to make up points. Before she plays the audio of the book, she says, “Let me see you with
your pencil or bookmark when I walk around. What do I need to see?” Students answer out loud. She pauses the audio and asks the students how Grim and Gram react? She directs them to add notes Grim/Gram in the margins. She gives a frame, “The Grandma treats ____ with ____.” She tells them next to write Max in the margin and says that he is not used to this treatment and asks why. The teacher tells them that they now have a variety of notes, fill-in, question and answer. Two from the Chew on This group have re-entered the classroom with their notes and go back outside. She asks students to look at question 4 and continues the audio. She checks that students are reading in the right place. A fourth student goes out to join the others outside for Chew on This. At the end of the Chapter, partner A gives a commentary.

The teacher goes back to their predictions, emphasizing the hint that Max has trouble with reading. She tells them to add it to their notes. She gives them a page number and a sentence frame for Max. Then she asks them to write notes for how Kevin teases Max and a sentence frame is given. This time she asks the students to cite the exact words. One student from the Chew on This group comes in a gives a green card. Meanwhile, the teacher is circulating and checking notes. She calls on three students to give answers. The teacher asks them to add to their notes from page 45 and gives them a fill-in sentence for a vocabulary word. She next asks them to add the summary and reminds them that “the why goes in the summary.” She tells them that they can have the same summary as the person next to them. She tells them that some students focus better with a partner or by working alone. The teacher continues meeting with each group, checking notes and signing off. She asks if anyone wants to share aloud. She asks them to put their pencils down while a student is speaking.

The three students from the Chew on This group come back in. The teacher asks a student to pick up the notes while the teacher picks up the Affirmations to be painted the next
day. She then chooses a student to pick up the questions and bottles. The teacher tells me that one student who finished his notes early did so to be able to work in the office. She reports that has motivated him to work faster, be on task, and be more cooperative.

The 8th grade teacher focused on multiple means of Representation. Students had a variety of videos to view and a political cartoon to analyze. They start with the Pledge of Allegiance. The teacher tells the students to take out a pen or pencil. She says of the video they are going to watch that “I believe you you’ve seen it before. There’s a sheet I want you to take notes. Second or third time we’ve watched this.” She passes out the paper “New Movements in America” and asks them to turn to the back side. She asks who remembers this video. Two hands go up. She asks the students to say the word abolish and asks what the Spanish cognate is. “Nobody?” she asks.

She tells them, “We’re sharing an article from the Interactive Reader.” She divides up Chapter 13- Section 4, giving two tables the same section: Key Terms, Abolition, African-Americans, or Underground Railroad. She directs them to read in their group and highlight what is important. She tells them to read in groups together as one chunk.

At the side board, there is red butcher paper put up and the Key Terms groups are gathered to write the Key Terms and write their own definitions of them. They are divided into pairs with one word for each pair. After the first group is done, they are directed to pass out computers, two for each group. The teacher then goes to each group to check and explain what to do with the key terms and their section. The teacher reviews the key terms and asks them to focus on putting it into their own words.

Next, the teacher tells the students that there will be a test uploaded to the school computers. She tells them that they will be watching three short videos on YouTube for
Kids.com: (1) Abolitionists for Kids; (2) Why Lincoln Ended Slavery; (3) Abolish Slavery Speech. She tells them their assessment will be to define the political cartoon. She says, “Hopefully at least one computer per group will work.” She tells them their “discussion questions are: What did you just watch? What was some of the propaganda? What did you see? Abolish what? Slavery. Who? Call out some names.” Students begin watching videos; some with more success than others. As an observer, I was not sure they were watching the same videos. After a while, she asks them all to go to the third video reciting Abraham Lincoln’s speech. They seem to be on the same one.

When the teacher says stop, she asks them to bring a pen. She says,

We’re walking to the Quad, the trees, stay with your groups. Make sure you have a pen and one paper, political cartoon – you’ve seen it before. There’s only three questions, allusion to the Bible, ‘you are not my brother.’ I will consider this a test.

She passes out clipboards, one per table, one pen. She tells them to leave their backpacks. She continues, “Let’s go under the tree. Let’s enjoy the nice fresh air.” They walk out and then gather around a tree which has a concrete bench around it and a lunch table next to it. Some students are standing, and some are sitting. She tells them not to listen to other groups, and to be fair if there is one person. She also directs them to write in complete sentences including the prompt. As the students discuss and write, she sits with each group.

She then calls for them to go back to the classroom. Once there, one student collects the paper, one collects the highlighters, one collects the clipboards, and two collect the computers. The teacher says, “Before I collect the test, make sure all in your group are on it.” As she walks around, she says, “Good job, restating the prompt, always.” After she has checked the groups, she calls on individuals in groups to answer the questions without looking at the paper, telling them they have to have three different answers. For question 2, she says, “both knees,
supplication, please don’t. What does one knee represent.” The teacher says it means asking, pleading, proposing. For question 3, she says it is Biblical, “When are we all brothers?”

For closing, she asks the students to straighten up. One student gets the broom, one goes to recycle, a student collects all of the tests. She tells them that all the desks need to be cleaned out, inside, too. She then asks them to wait outside the classroom for the bell.

For all three teachers, as noted at the beginning of each description, I did notice some change in how the teacher instructed from the first observation to the second. The 6th grade teacher introduced a video to support the text while continuing her focus on the RACES strategy of writing. While she made it clear to all students that the video was to provide more information in a different way, it was not clear how she wanted the students to use the information from the video. There were signs of engagement, the students were alert during the video, sitting up and leaning forward, but the information was not incorporated into their notes or their writing. Thus, the impact of the multiple representation of the information was limited.

The 7th grade teacher added mindfulness activity to the beginning of class as well as a choice of text. The atmosphere during the mindfulness activity was respected with students being quiet and quietly turning the bottles. The transition to the next activities maintained the calm and attentiveness from the mindfulness activity. The choice of books allowed for students to have more interest in the book. Engagement seemed to be more successful here.

The 8th grade teacher added a variety of videos and a change of scenery for the entire class. She let the students know which videos she wanted them to watch and gave them a choice of which to watch. While the students were engaged in locating the video and watching once they believed they found them, it was unclear if they were on the correct video and what they were to do once they watched it. Some also had difficulty with the technology itself leading to
more discussion on the technology than the content. Thus, as with sixth grade, the multiple representation was not as successful here. On the other hand, the political cartoon was more successful in engagement. There was more student discussion and participation.

Section Six: Final Interviews

Based on their availability, final interviews were conducted in the summer following the second observations. All three teachers recognized that UDL could help them better reach their students, with and without labeled disabilities and often expressed it using the language of UDL such as engagement, representation, and perception. The 6th grade teacher stated,

“…UDL has more of a specific focus to help our students, especially students who may need some extra support and strategies to guide their learning. So to provide that focus with their engagement, with thinking about multiple measures, and how to address those students.”

This is echoed by the other teachers who stated what questions UDL would help answer. The 7th grade teacher asked,

“All these little pieces that you’ve been learning, where do you plug them in and why? How is it going to help the student reach the standards or goals that we have.. Exactly how do we make it accessible for students, whoever the student is, to be able to perform in a way that he’s going to reach that goal.”

The 8th grade teacher stated,

“I think UDL is great in that it’s a rubric for how you’re gonna get them that information across to the students how you are going to get them engaged, involved and buy into what they need to learn…how are we going to get them interested? The representation? The perception?...How are students going to learn content-specific information?”

As they reflected upon their students with special needs, there was no hesitation to having them in their classes in the future. The 6th grade teacher said, “I’ve always welcomed the multiple levels of students in my classroom, so I never thought about it…So I’ve had a lot of experience with it, more so lately, that it’s actually been something I welcome more than anything.” The 7th grade teacher accepted it, saying, “That’s usually my assignment and that’s
usually what I’m looking to doing.” She also commented in more depth about her students and how they make her “redesign her lessons” and says, “How am I going to reach you…I think part of it is like that’s just how I teach.” The 8th grade teacher also said it was fine and what “I’ve always had,” but would like more support.

Section Seven: Findings

1) To what extent does participation in a professional development intervention grounded in the philosophy of Universal Design for Learning impact general education teachers’ perceptions of the placement and capabilities of students with special needs in their inclusive classroom settings?

While they were not asked directly if their beliefs were more aligned to the medical model or social justice model, it can be determined that placement was done with the medical model in mind. However, it was clear that two of the three, the 8th and 7th grade teachers, were not satisfied with the status quo and were more willing to question the role of standardized tests for placement.

What is notable from the study is the tension they all felt between two different needs. How do they support their students, yet prepare them for standardized testing and evaluation they must do alone? How do they shield them from embarrassment, yet encourage them to share aloud and allow them to gain confidence?

The 6th grade teacher referred to this first tension several times in our final interview. She acknowledged “…I think they really have to come to terms with it in their own mind because the reality is students have to do on their own eventually.” Furthermore, she explained,

…unfortunately that's the reality in the SBAC, it's going to be like that so we have to be able to get them through it. And I tell them all the time we may not like what we're reading it may be boring, but you have to know how to read it and how we're gonna get through it quickly and effectively enough so that you can do it correctly. It's just like washing dishes, I don't like to wash dishes but if I don't do it right the first time then I'm gonna be doing something I don't like again. I'd rather just get through it, do it right the first time, and then it's done.
In a related concern, how much support should teachers provide when all students will be evaluated without them? The 6th grade teacher says,

“...the reality is when they take the SBAC or when they take an assessment a lot of times they don’t have that. And we don’t want them to get too dependent on it. So that’s why it’s so hard. It’s so hard as a teacher ‘cause you really have to balance it. It’s a balancing act.”

The 8th grade teacher both acknowledged the significance and questioned the validity of standardized tests for her students. She said of the students’ low reading scores in DORA (district diagnostic test),

...is it not really trying, is it really struggling? And then how valid is the that test? But that’s what we have, unfortunately that’s what is going to be used to give them ninth grade classes. And so that’s the struggle for me to get the students to take it. To really look at their scores and then where do I start?...That’s a dilemma for me.

This serves as a reminder that at this school the RSP students were placed in classes with other students with low test scores, also called Intervention. As shown earlier, the practice was disapproved of by each of the Focus group teachers and the teachers in this study. The 7th grade teacher described the effect of this placement in her students. She said,

“...because a lot of my students are intervention, I do find that they are...they feed into that. And so when you have a good combination, you have other students that acknowledge like, ‘Oh you’re smart,’ that’s a good thing rather than downplaying themselves. You saw [student] over here...he’s a smart kid. But his self-esteem has been pulled down so much that he tries to joke everything out.”

At this school, as was explained in the first interviews, students were reminded that they were in intervention classes and had low grades. One way was when they could not participate in or had to pay more for school-wide incentives. Another way was when they were subject to what the 8th grade teachers called “brow beating” by the “dismal” scores they received. Both the 7th and the 6th grade teacher noted the need to build up their students’ confidence. The 7th grade teacher emphasized to her student what they can do. She’s shared with them,
If you’re failing, there’s a reason. It’s not because you’re dumb. That’s never a reason. I see my students, some of them are just bummed out. I’m like, ‘But you know how to read. That’s an amazing thing. Those are like little characters and you’ve recorded them in your brain and you can read them? You have the power, you know?’ And she acknowledges, Do I have to do more motivation? Yes, either oral or verbal or little prizes.

Understanding the students’ low confidence or self-esteem, the teachers had different approaches to how they had students share out to the class. The 6th grade teacher acknowledged, “There is always this hesitation because they don’t want to be wrong.” But she saw that the students needed to be “comfortable with the uncomfortable and knowing students, the judgment, and unfortunately, there’s always gonna be student who may make a comment or may say something or may giggle because your response is wrong.” However, the benefit is, “students need to have the opportunity to verbalize and articulate their answers as well. It’s the teacher’s job to provide that comfort in the classroom so you start to see…it’s like now you know how to minimize that so that eventually there is that comfort for all students. But you have to start somewhere.”

The 7th grade teacher tried to build the students’ confidence first since she noticed that they don’t think highly of themselves. She found,

those students that were going to give a good response, then the ones that stood up to…and what I was trying to do there is not embarrass anybody by giving me the wrong response…and then reassuring those that were going to speak that they did have the right answer, so go ahead and speak because you got it.

She shared how this affected one particular student. She stated, “…when I am in the group and I ask him and he’s eloquent, the other kids are like, ‘Good job. Good for you. Oh, you did good.’ That builds him up.” I did notice several instances where she checked the answer the student was going to give before calling on them.

2) To what extent does participation in professional development grounded in the Universal Design for Learning framework affect general education teacher pedagogy in the inclusive education setting?
The 6th grade teacher stated, “…it [UDL] does give me another tool to how I approach my teaching and my direct instruction.” She also reflected,

Because after 20 years you kind of lose that a little. The reality is, and it’s more like okay you’re expected to do it. These are your expectations, now do it. It’s like I’m the teacher, you’re the student and that’s just the role. Versus you know being a little more inviting for the students and engaging them with that recruiting interest in the beginning….When it is something that they own, it’s theirs and they’re doing it because they want to learn it, then our goal is easily attained.

The 7th grade teacher answered, “…it might help me to just not be so stressed too because I know I’m delivering a lesson that is going to reach out.” She also shared, “…I like that executive functioning just really captured me because it’s the type of thing that you’re like, ‘What’s missing?’”

In addition, the 8th grade teacher stated, “I think that UDL is great in that it’s a rubric for how you’re gonna get that information across to the students, how you are going to get them engaged, involved and buy in to what they need to learn. And for more looking at social studies, it’s information that’s never going to change. It’s old, it’s not gonna change and how are we going to get them interested?” She reflected, “…when I was looking at my UDL lesson, I found so many loopholes…It’ almost like backward learning for me…so I think it’s a great rubric for me as an instructor and planning my lessons.”

In conclusion, this study has made clear to me that these teachers are cognizant of the need to reach all of their students, with and without identified special needs. However, they are placed in a situation at the school and under the sorting of standardized testing, that is working against their students.
Chapter Five – Reflections and Implications

The original impetus for this study was the lack of preparation General Education teachers felt when given a class with students with special needs included and how training in Universal Design for Learning could help prepare for and reach these students. In my study, I wanted to reach a group of middle school General Education teachers and provide professional development that General Education teachers in the target district had not been provided in many years. This chapter is divided into four parts. In Section One, I reflect upon what my finding were in relation to my literature review. In Section Two, I note the limitations of my study. In Section Three, I discuss the implications from my study. Finally, in Section Four, I make suggestions for future research.

Section One: Reflections on Research

As required by law, students with special needs were placed in the General Education classes at the school of the focus group and study teachers. These RSP students were divided among all English-Language Arts teachers without consultation of the teachers. According to the focus group and study teachers, in core classes, such as English and math, these students were placed with lower performing students in intervention classes. There was no predetermined maximum or minimum of RSP students placed within a class.

Support by Special Education personnel varied and was not quite in line with the four structures identified in the research. All the teachers said they received information about the RSP students from their case carriers but did not seem to have a consultative structure since they did not receive support in how to adapt curriculum or modify assessments. The 6th grade teacher’s explanation of working with the RSP Teacher was more often what individual students did with her rather than on instruction, curriculum, or assessment. An RSP teacher did pull some
students out according to the 6th and 7th grade teachers but not the 8th grade teacher. I also did not observe any evidence of an Instructional Aide which supports what the Focus Group teachers had reported. In addition, even though the 8th grade teacher reported that an Instructional Aide worked daily with the class I observed, I did not see one on either observation.

Furthermore, even though co-teaching is the model of choice (Austin, 2001; Kilanowski-Press et al., 2010; Magiera & Zigmond, 2005; Murawski & Lochner, 2011; Salend & Whittaker, 2012; Scruggs et al., 2007; Walsh, 2012), there was no evidence of a co-teaching relationship at all among the focus group or the study teachers.

In comparing the best practices for structuring inclusion recommended by the research with what I observed and learned from the study, I did not see much evidence and in some cases, I learned the opposite was the case. In placing students with special needs in an inclusion setting, many factors must be considered. However, according to most of the teachers, including the focus group, the students are divided and placed in the classes with the lower scores with no input from the teachers. Also, even though the research emphasizes the importance of how both the General Education and Special Education teachers are chosen and paired up (Austin, 2001; Flores, 2008; Gurgur & Uzuner, 2010; Kilanowski-Press et al., 2010; Mastropieri & Scruggs, 2012; Murawski & Lochner, 2011; Salend & Whittaker, 2012; Scruggs et al., 2007; Worrell, 2008), there was no input from teachers or notification to teachers before they were assigned intervention classes. There was also no evidence of time set aside or scheduled for the GenEd and RSP teachers to meet. In this school, as in all middle schools in this district, there is no preparation period built into the schedule, so arranging the same preparation period was not an option. The 7th and 8th grade teachers in the study suggested that the RSP teachers could meet
with their PLC groups to make an impact on what was taught and what strategies were used but the RSP teachers did not attend.

As for the instruction in the classroom, there was no clear best practices, which is in line with the research (Baker et al., 1994; Fuchs, 2009; Huber et al., 2001; Kilanowski-Press et al., 2010), and none of the study teachers had heard of Universal Design for Learning (UDL). Most of the teachers mentioned scaffolding the text, working in small groups, and appealing to multiple modalities (not just print but audio and visual as well) as ways to teach the RSP students. These strategies fall under the principle of representation in the framework of Universal Design for Learning. There were some teachers who chose reading materials that would appeal to and encourage students to read and that falls under the principal of Engagement. There was much less discussion of changing assessments, or the principle of Action and Expression. One teacher used the same assessment, the RACES paragraph frame, throughout the year.

In general, teachers expressed views more along the lines of the medical model. They saw the student as being deficient in skills and working to make these students succeed at the standardized, normal assessments. This was made obvious by the focus group teacher who described her students as very low, not trying, and making it hard for her, and the study teacher who said of one of her RSP students, “no motivation…we’ve tried and tried…”

However, there was criticism about the placement of the students which was more in keeping with the social model. One of the focus group teachers said,

It seems like they're all together, the lower performing students, academically performing students. I don't think they have maybe a good let's say modelling from their classmates. It's just reinforcement of non-academic behavior, because most of the low performing students have a history of behavioral problems, so that would be my concern that they have a mix grouping, like maybe one-third, one-third, one-third, or some type of configuration that would help the special education students kind of like lift all boats.
Similarly, one of the study teachers complained that an RSP student was seen as a lower performing student in all areas. She said, “…just because they are RSP does not necessarily mean they need to be in a reading intervention class when their language arts is fine.”

Other signs of the social model included rebelling against the standardized testing that labeled and sorted the students. One of the focus group teachers choose a book that would engage the students in reading, despite it not being at grade level. She stated, “I feel actually guilty that it's not an informational text, because we're so focused on informational text. Like entertainment reading, Judy Blume, is not something I want to get caught teaching anymore because we're so geared toward the test.” Furthermore, one of the study teachers, overtly tells parents that the data means nothing. She describes “The data is dismal, and to me that's just punitive for the child to sit and listen to, as well as for the parent. It really, at the end of the day, means nothing other than just really it's brow beating the numbers.”

**Section Two: Limitations of My Study**

While my study does reveal the reality of inclusion at this school and could shine a light on how others may, it has its limitations. For one, the participants of the focus group and study were all from the same middle school. How it places students with disabilities, chooses its teachers, deploys its special education personnel, and how it rewards its students may be unique to its site. Secondly, the focus was on the teachers, their viewpoints, instruction, strategies, and any changes made after being trained in UDL. There was not a corresponding focus on the effect of the teacher’s choices on student performance. Third, the study was hampered by scheduling issues, including scheduling substitutes for when I needed to be out to observe the teachers and dates and times for interviews and the UDL training needing to be after school hours and on the
weekend. Finally, the study needed to be streamlined and restarted several times because of difficulties in recruiting willing participants.

Section Three: Implications of My Study

While the literature demonstrates that teachers want more training (Austin, 2001; Gurgur & Uzuner, 2010; Kosko & Wilkins, 2009; Santoli et al., 2008; Worrell, 2008), and several teachers wanted it was well, finding the time during the school year was difficult and not appealing to most teachers. I don’t believe the difficulties I encountered were unusual. The job of a teacher can be all-consuming. From individual teacher reflections, to surveys and interviews in case studies, to large-scale questionnaires, researchers have found not only that teachers log extra time on work outside the classroom but also that teachers often find it hard to stop thinking about the work they do in the classroom (Bridges & Searle, 2011; Butt & Lance, 2005; Gunter et al., 2004; Hargreaves, 1992; Lindqvist & Nordanger 1, 2006; Marston et al., n.d.; Naylor, 2001). Therefore, it is not surprising that many teachers did not want to participate and those that did participate did not follow through on paperwork such as providing lesson plans and asked for a reduction in the training hours.

Since the study, the target district has made effort in training both GenEd and SpEd teachers, acknowledging the need for it. In August of 2019, the district offered training for both GenEd and SpEd teachers on two different tracks, meaning they did not have sessions together. One of the sessions was on UDL. Several times the presenters emphasized that UDL was “just good teaching.” However, I think that terminology does not challenge the teacher to rethink his/her teaching as it needs to, and it actually undermines the philosophy of UDL. Such thinking could, at best, encourage teachers to reflect on their teaching practices or, at worst, lead teachers to complacency and entrenchment of what they have always done. In the future, organizers...
should be mindful of timing, collaboration among participants, and follow-up to better develop UDL-based strategies.

Most recently, the target district has made training both GenEd and SpEd teachers together a priority. At the December 1, 2021 Board Meeting, the Assistant Superintendent for Educational Services presented the draft of the district’s plan for the Educational Effectiveness Block Grant, and one of the 10 focus areas is “Professional Learning on Universal Design for Learning and collaboration between special education and general education teachers” (Yuen, 2021). The next step is for the Board’s approval at its next meeting on December 15, 2021.

However, clearly change cannot just come from teachers. It is the structure of schools that works against students who do not measure up based on standardized testing. Making the changes in the classroom is not enough. Danforth & Rhodes (1997) argue, “Seemingly, the actions of one teacher or a handful of teachers at one site could hardly make a dent in changing ‘the way it is.’” There are so many factors feeding into the lack of success students with special needs face, not the least of which is the continued use of standardized tests to sort and label students. This labeling year after year makes the students feel stupid and incompetent, taking away their confidence and motivation.

UDL is an empowering framework that can been seen as a vehicle for students to reach proficiency but not necessarily as a vehicle for social change. As Braunsteiner & Mariano-Lapidus (2014) argue “This system is not set up to support a diverse body of students to achieve equal opportunities because it is based precisely on standardizing the means by which students demonstrate their worth.” Truly providing equal opportunities to succeed will take a much longer process.
Section Four: Suggestions for Future Research

For the future, I would recommend more research be on the effects of Universal Design for Learning as a whole. Some studies focused on only one principle of UDL such as engagement and other only on representation. As Novak (2014) argued, “it’s a mistake to think that using one or two guidelines equates to full implementation.” She further argues that “Students will learn more because activating all three brain networks does what it says: it ensures that three parts of the brain are turned on and ready to learn.” The creators of UDL also emphasize the importance of affective network to learning, stating, “A curriculum centered on content and skills implies that affect is secondary—it can enhance or interfere with the ‘real’ business of learning. But it is clear now that affect is core.”(Meyer et al., 2014) Thus, trying to research UDL principles separately, divorcing them from each other, is not ideal and not how the brain works.

Other studies were not able to clearly show how the UDL interventions were beneficial to students. Often practitioners and researchers noted the potential and promise of UDL but not necessarily the specific actions and their effects. Part of the problem lies in, ironically, one of the main strengths of UDL, that is its flexibility. Educators can use a multiple of ways to meet the checkpoints, incorporating best practices from a variety of sources. However, this makes it difficult to pinpoint specific practices that lead to specific, measurable outcomes. As Baglieri (2016) commented about UDL, “This ‘kitchen sink’ approach considerably weakens the possibility for UDL to be or become a meaningful framework for practice, as there are not discernable parameters.” Furthermore, in their meta-analysis studies of UDL used in K-12 classroom, Ok et al. (2017) noted, “This relatively small set of 13 studies depicts various ways that UDL can be applied and highlights challenges in establishing a solid foundation of research
on UDL-based methods.” In addition, they described that “UDL intervention studies are relatively new and few” that not only did not always allow for a determination of effect size but were too few “to permit analyses and findings of the type in meta-analytic reviews based on 10s or hundreds of effect sizes.” (Ok et al., 2017)

In addition, the role of technology should be further investigated. When UDL was first developed, technology was seen as one important key to reducing barriers to learning. “Sensing the promise of technology, we sought to find, adapt, and even invent technologies that would help students with disabilities overcome the barriers they faced in the environments, especially in schools.” (Meyer et al., 2014) Since CAST (Center for Applied Special Technology) first developed the UDL framework, educational technology has substantially increased, and during the pandemic when many schools found themselves educating their students online, the widespread use and reliance on technology has changed instruction, curriculum, and assessment. This use was often adopted and implemented quickly and sometimes haphazardly as distance learning situations evolved faster than training and evaluation could manage. Now, as most students are back in the classroom, is the time to evaluate the technology and its use in the classroom because the quality and accessibility can vary greatly. There is also the need to evaluate students’ use of technology and educate them on its appropriate use.

**Conclusion**

As I reflect upon what I have experienced and learned, I realize that I have been quite naïve. As a teacher of many years, I have been very isolated and complacent, seeing just what I did and what I could do for my students. That was my world, and that is where I saw change could happen. My daily or yearly reflections dealt with how I could reach my students better, how I could help them be successful, and what additional training I could get. Sometimes I
questioned the choices I made and their effect on my students after they left my class: will they be successful without the support and choices they had in my class, did I do them a disservice by making accommodations? My thoughts rarely dealt with the system of sorting and labeling students or with the labeling itself. That was not something in my control. With my budding discomfort in the system, I am unsure what my next steps should be. On the other hand, it is exciting to think of the possibilities now that my eyes have been open to the larger work ahead.
Appendices

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### UDL – Observation Chart

#### Provide multiple means of Engagement

<table>
<thead>
<tr>
<th>Checkpoints</th>
<th>Evidence</th>
<th>Score*</th>
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<tbody>
<tr>
<td><strong>Checkpoints</strong></td>
<td></td>
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<tr>
<td>Options for recruiting interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Optimize individual choice and autonomy.</td>
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<tr>
<td>• Optimize relevance, value, and authenticity.</td>
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<tr>
<td>• Minimize threats and distractions.</td>
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<tr>
<td>Options for sustaining effort and persistence</td>
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<tr>
<td>• Heighten salience of goals and objectives.</td>
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<tr>
<td>• Vary demands and resources to optimize challenge.</td>
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<tr>
<td>• Foster collaboration and community.</td>
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<tr>
<td>• Increase mastery-oriented feedback.</td>
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<tr>
<td>Options for self-regulation</td>
<td></td>
<td></td>
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<tr>
<td>• Promote expectations and beliefs that optimize motivation.</td>
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<tr>
<td>• Facilitate personal coping skills and strategies.</td>
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<tr>
<td>• Develop self-assessment and reflection.</td>
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#### Provide multiple means of Representation

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<thead>
<tr>
<th>Checkpoints</th>
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<tr>
<td><strong>Checkpoints</strong></td>
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<tr>
<td>Options for perception</td>
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<tr>
<td>• Offer ways of customizing the display of information.</td>
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<tr>
<td>• Offer alternatives for auditory information.</td>
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<tr>
<td>• Offer alternatives for visual information.</td>
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<tr>
<td>Options for language and symbols</td>
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<td></td>
</tr>
<tr>
<td>• Clarify vocabulary and symbols.</td>
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<tr>
<td>• Clarify syntax and structure.</td>
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</tr>
<tr>
<td>• Support decoding of text, mathematical notation, and symbols.</td>
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<td></td>
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<tr>
<td>• Promote understanding across languages.</td>
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<td></td>
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<tr>
<td>• Illustrate through multiple media.</td>
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<tr>
<td>Options for comprehension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Activate or supply background knowledge.</td>
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<tr>
<td>• Highlight patterns, critical features, big ideas, and relationships.</td>
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<tr>
<td>• Guide information processing and visualization.</td>
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<tr>
<td>• Maximize transfer and generalization.</td>
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#### Provide multiple means of Action and Expression

<table>
<thead>
<tr>
<th>Checkpoints</th>
<th>Evidence</th>
<th>Score*</th>
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<tbody>
<tr>
<td><strong>Checkpoints</strong></td>
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<tr>
<td>Options for physical action</td>
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<tr>
<td>• Vary the methods for response and navigation.</td>
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<tr>
<td>• Optimize access to tools and assistive technologies.</td>
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<tr>
<td>Options for expression and communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use multiple media for communication.</td>
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<tr>
<td>• Use multiple tools for construction and composition.</td>
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<tr>
<td>• Build fluencies with graduated levels of support for practice and performance.</td>
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<tr>
<td>Options for executive functions</td>
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<tr>
<td>• Guide appropriate goal-setting.</td>
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<td>• Support planning and strategy development.</td>
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<tr>
<td>• Facilitate managing information and resources.</td>
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<tr>
<td>• Enhance capacity for monitoring progress.</td>
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*Score: 2 for good evidence; 1 for some evidence; 0 for no evidence
UDL Professional Development

Objectives
• Teachers will be able to identify and describe the three principles of Universal Design for Learning.
• Teachers will be able to explain the difference between UDL and Differentiated Instruction
• Teachers will be able to apply guidelines and checkpoints from at least one principle.

Agenda
1. Introduction
   a. Reflection and Self-Assessment
   b. Review objectives and plans for the morning
   c. Review contents of Notebook
2. Universal Design for Learning
   a. Rational
   b. UDL Principles
   c. “Learning Follows Engagement”
   d. Engagement
   e. Representation
   f. Action and Expression
   g. UDL vs. Differentiated Instruction
3. Lesson Planning
   a. Format
   b. Observation Date and Final Interview
4. Questions and Answers
5. Final Thoughts – Big Picture

Resources
CAST (Center for Applied Special Technology)
http://www.cast.org/

National Center for Universal Design for Learning
http://www.udlcenter.org/

UDL Center
http://community.udlcenter.org/

The UDL Project
https://www.theudlproject.com/
<table>
<thead>
<tr>
<th>Date</th>
<th>Quote</th>
<th>Daily Schedule</th>
<th>White Board/Screen</th>
<th>DocCam/LCD</th>
<th>RSP Student</th>
<th>RSP Student</th>
<th>RSP Teacher</th>
<th>Me</th>
<th>Back Wall Posters: Reciprocal Teaching; On/Under the Surface Questions</th>
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**Approximate layout**

- TV
- Desk
- Computer Cart
- RSP Student
- RSP Student
- RSP Teacher
- Me
- Door to RSP Room
- File Cabinets
- Table of Materials
- Door
- Sink, Cabinets
<table>
<thead>
<tr>
<th>shelves</th>
<th>windows</th>
<th>door</th>
</tr>
</thead>
</table>

8th Grade Classroom Set-Up – First Observation

- Teacher desk
- Student work
- White board/Agenda, notes, date
- TV on cart
- Shelves
- Cabinets
- Chairs
8th Grade Classroom Set-Up – Second Observation

Approximate layout
Reference List


