

Saint Mary's College of California

Saint Mary's Digital Commons

MATL Action Research Projects

Spring 2020

Supporting Students with Learning Disabilities in General Education Inclusion Classrooms

Susan McGill

Saint Mary's College of California

Follow this and additional works at: <https://digitalcommons.stmarys-ca.edu/matl-action-research>



Part of the [Educational Leadership Commons](#), and the [Teacher Education and Professional Development Commons](#)

Recommended Citation

McGill, Susan, "Supporting Students with Learning Disabilities in General Education Inclusion Classrooms" (2020). *MATL Action Research Projects*. 4.

<https://digitalcommons.stmarys-ca.edu/matl-action-research/4>



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

This Thesis is brought to you for free and open access by Saint Mary's Digital Commons. It has been accepted for inclusion in MATL Action Research Projects by an authorized administrator of Saint Mary's Digital Commons. For more information, please contact digitalcommons@stmarys-ca.edu.

Supporting Students with Learning Disabilities in General Education Inclusion Classrooms

An Action Research Project

Presented to

The Faculty of the Kalmanovitz School of Education

Saint Mary's College of California

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Teaching Leadership

By

Susan McGill

Spring 2020

Copyright © 2020 by Susan McGill

All Rights Reserved

This action research project, written under the direction of the candidate's master's project advisory committee and approved by members of the committee, has been presented to and accepted by the faculty of the Kalmanovitz School of Education, in partial fulfillment of the requirements for the Master of Arts in Teaching Leadership degree.

Candidate: Susan McGill

Date

Master's Action Research Project Advisory Committee:

Research Advisor: Christine Reimer, M.A.

Date

Faculty Advisor: Heidimarie Rambo, Ph.D.

Date

Program Director: Heidimarie Rambo, Ph.D.

Date

Dean: Carol Ann Gittens, Ph.D.

Date

Abstract

Supporting Students with Learning Disabilities in General Education Inclusion Classrooms

By

Susan McGill

Master of Arts in Teaching Leadership
Saint Mary's College of California, 2020

Christine Reimer, Research Advisor

Research has shown that in the decades since the passage of the Individuals with Disabilities Education Act (IDEA), public schools have had a mixed record of providing accommodations for students with learning disabilities. Students of color have been disproportionately segregated into special education programs, and students with learning disabilities were less likely to graduate high school. Many inclusion models are available for general education classrooms. Yet, research into teacher and student perceptions within inclusion settings indicate frustrations persist, especially in secondary schools where the high number of student contacts leaves little time for educators to provide individualized accommodations. The goal of this action research project (ARP) was to investigate the effects of universal design for learning (UDL) strategies on suburban participants' progress toward individual writing goals, as well as improving communication within the student support team. Participants experienced a 10-week writing unit featuring UDL strategies which strengthened both their writing and confidence.

Dedication

This action research project is dedicated to all my students, including those I have not yet met. It has been my honor to guide you during your residency in my classrooms. Enter to learn. Go forth to lead and serve.

Acknowledgements

This action research project would not have been possible without the continual support of so many. First, I want to thank all of the mentors and colleagues who have demonstrated what Teaching Leadership looks like. Your inspiration has led me to this moment. Next, I want to express my endless gratitude to my cohort who traveled this journey with me. It has been a pleasure collaborating with this small but mighty group as we waded together through uncharted waters during the lockdown of 2020. Even though our commencement was canceled, I will always remember the comradery and laughter we have shared. Third, I deeply appreciate the professors who guided and challenged us along our path toward degree completion. Also, I want to acknowledge my dedicated and supportive research advisor, Christine Reimer, who was an endless resource for me even while we were both also figuring out distance learning. Finally, I want to thank my family who have supported me from decision to completion. There is no one else I would rather be locked down with. Thank you for your patience while I researched, wrote, and rewrote during this past year. I can only apologize for the amateur haircuts during quarantine. Without you, none of this would have been possible.

Table of Contents

	Page
List of Figures	viii
List of Tables	ix
Chapter	
I. Introduction	11
Statement of the Problem.....	13
Purpose of the Research.....	17
Action Research Question.....	18
Limitations	18
Positionality of Researcher	19
Definitions of Terms.....	20
Implications.....	21
II. Literature Review	23
Overview of Literature Review	24
Theoretical Rationale	24
Review of Related Research.....	29
Summary.....	46
III. Method	48
Setting	50
Demographics of the Classroom.....	52
Data Collection Strategies.....	53
Procedures.....	56
Plan for Data Analysis	58
Summary.....	59
IV. Findings	61
Overview of Methods and Data Collection	62
Demographics of the Participants	63
Analysis of Student Journal Reflections.....	64
Analysis of Student Writing Scores.....	68
Analysis of Teacher Field Notes.....	69
Summary.....	73
V. Conclusions and Next Steps.....	74
Summary of Findings.....	76

Interpretation of Findings	81
Reflections on Limitations.....	84
Summary	85
Plan for Future Action	86
References.....	89
Appendices.....	94
A. Argument Writing Checklist	95
B. Baseline Writing Prompt	96
C. Teacher Field Notes Template	97
D. First Student Journal Reflection	98
E. Second Student Journal Reflection.....	99
F. Introductory Paragraph Graphic Organizer	100

List of Figures

Figure

1. Pre-intervention student journal reflection #1 responses.....65
2. Post-intervention student journal reflection #2 responses66
3. Post-intervention student writing scores.....68
4. Pre- and post-intervention student writing scores.....69

List of Tables

Table

1. Demographic breakdown of participant population63
2. Summary of common themes in the researcher's field notes72

Chapter I

Introduction

Middle and high school are challenging for students on many levels, socially and academically. Typically, students transition from elementary into a secondary setting environment featuring a faster pace and multiple teachers. It is common for students to feel overwhelmed or overlooked. For students with disabilities, these feelings can be multiplied.

Federal and state laws protect the equitable access of students with learning disabilities in public education, yet in practice, secondary general education teachers often lack guidance, training, and accountability in this area. The inclusion of students with disabilities matters. Compliance with the law matters. Yet from site to site, district to district, and even state to state, the training and professional development provided to general education teachers surrounding the inclusion of students with disabilities ranges widely, and often lacks accountability entirely (Washburn-Moses, 2008). If inclusion is not consistently and effectively managed, especially in secondary school settings, public school classrooms cannot be equitable for students with learning disabilities.

Equitable access to a high quality public education for students with disabilities begins in the inclusion classroom. This notion is at the core of Vygotsky's (1994) social constructionist view on disability and its practical implementation in contemporary inclusive education. Rather than taking a deficit approach, Vygotsky's (1993) position was to identify strengths and include disabled students with their abled peers as much as possible. He wrote,

It is impossible to be guided only by what a given child lacks, by what he is not. On the contrary, it is necessary to have some conception, even if the most vague understanding, of what his capabilities are and what he represents. (p. 137)

In other words, educators must reject the deficit approach and focus instead upon a positive identification of their students' capabilities and potential. Vygotsky's early criticism of the deficit model is even more starkly compared to the decades of deficit methods used in the years between his research and when inclusion was mandated in the U.S. in 1975. Students are positively impacted when supportive and effective inclusion is provided through accommodation and modification. This is more likely when special education teachers, counselors, and general education teachers collaborate, communicating clearly and consistently about the needs and expectations for students with disabilities. However, inclusion also intersects with parents, administrators, district personnel, and the wider community. Statistics indicate the national population of students with identified disabilities is growing, as is average class size in general (NCES, 2009). Educators in inclusion classrooms must adjust toward research-based best practices using universal access strategies in order to level the playing field, creating equity for all students.

The adoption of learning plans, for example, indicate a key shift towards a strategy for supporting a variety of students in a way which minimises [sic] reliance of labels and assumptions that particular medical diagnoses tell teachers all they need to know about students' needs. (Matthews, 2009, p. 237)

A diagnosis can provide explanations for teachers and parents alike, but also may create perceived boundaries, thus potentially limiting opportunities for students with learning disabilities to exceed expectations. The shift away from defining students by a diagnosis or by what they cannot do, or cannot do well, has begun. A move toward inclusive learning using universal access strategies has shown promise (Rose & Meyer, 2006). This research study was designed to build upon existing research surrounding best practices for the secondary general education inclusion classroom teacher, who is tasked with insuring an equitable environment for

all students, enabling them to equitably access the curriculum and improve performance toward learning goals.

Statement of the Problem

Nationwide, U.S. public school students with learning disabilities are considered significantly at risk for lower academic achievement, repeating a grade, and dropping out altogether (Samuels, 2015; Kemp 2006). In the 2012-13 school year, the percentage of students with learning disabilities who successfully graduated from high school was 61.9%. By comparison, the overall student graduation rate was 81% (Samuels, 2015).

Additionally, Howard (2010) describes the deficit approach to minority student populations in which Black, Latinx, and Native American students are often perceived as unable to meet the same levels of rigor and achievement as their White or Asian peers. This deficit approach creates an environment in which there is a disproportionality of students of color identified as learning disabled. Racially marginalized learners with a true learning disability are therefore at an even greater disadvantage caused by the inequitable environments within their schools. In this context, students of color who do not have a disability are artificially increasing the special education population. Meanwhile, those with an actual disability are less likely to receive the support they need in an overwhelmed and overpopulated inclusion classroom. These conditions perpetuate the national opportunity gap. Indeed, this phenomenon has remained unchanged since the reauthorization of the Individuals with Disabilities Education Act (IDEA) of 1990.

Currently, U.S. educators face an increasing challenge to ensure that students with disabilities receive the academic support they need to successfully access the curriculum as required by law. In the 2017-2018 school year, 7 million (14%) of U.S. public school students

(age 3-21) received services either through an Individualized Education Program (IEP) or a Section 504 plan (NCES, 2019). U.S. Department of Education reports indicate that these student populations are all increasing in number (NCES, 2019). To support these learners, general education teachers are mandated to provide accommodations and modifications as specified in each individual student's plan or profile. As a result of these provisions, gradual incremental progress has been made toward closing the achievement gap, in which students with learning disabilities historically score significantly lower when using a variety of measures as compared to students without learning disabilities.

Failure to provide legally mandated accommodations and modifications for students with learning disabilities could have a distinct financial impact as well because lower standardized tests scores influence funding formulas. As one educator pointed out, "School districts across the nation should continue to be very concerned, as students with disabilities are often among the lowest scoring group of students on state assessments that determine AYP [Adequate Yearly Progress]" (Hawpe, 2013). School districts are already typically underfunded, and as the population of students with learning disabilities slowly increases, scores could lower overall as a result, impacting available funding designed to support students who struggle unless inclusion practices are improved. Failure to provide legally mandated accommodations and modifications for students with learning disabilities can also significantly impact school districts financially due to growing litigation costs. In point of fact, one study found "In the year 2000, U.S. school districts spent approximately \$146 million on the resolution of disputes between families of children with disabilities and school districts" (Mueller, Singer, & Draper, 2008).

Presently, California is experiencing a shortage in special education teachers and instructional aides. To address the shortage of credentialed special education teachers, California

has recently created 41 Local Educational Agency (LEA) grants to recruit, train, and retain new special education teachers (CTC, 2019). However, general education teachers in inclusion classrooms are currently supporting an increasing percentage of students who require additional support, often without the opportunity to sufficiently collaborate with a special education colleague. Within the state of California, about one of every 10 public school students receives special education services, with the state spending over twice as much per pupil for students with disabilities as it does for students without disabilities (LAO, 2013). Not only is the population of students with learning disabilities growing, the California education budget for special services must therefore be increased accordingly.

The population of students who need additional support is increasing nationwide. Also, the trend toward ever-larger class sizes is also building. In California, the average public class size in a secondary departmentalized setting is approximately 30 students, the highest in the nation (NCES, 2019). Multiply this class-size average by the number of sections (or periods) assigned to each teacher, and it becomes clear that secondary teachers require management and organizational tools far beyond their elementary peers. The average elementary class in California has 21.6 students, with an average of 2-3 students requiring accommodation. In contrast, an average teacher with a full-time workload in a traditional secondary school (six sections and one prep period) will have 180 students, 23-24 of whom, on average, will need individualized accommodations. While an elementary student is with their general education teacher for most of the day, in a secondary setting it is common for a typical teacher to see their students for only 45-55 minutes a day, minimizing the opportunity to observe or interact with individual students with needs.

My intermediate school site reflects these secondary characteristics, with one exception: ELA and social studies are part of a two-period-long humanities block. My district has a lower than average cap of 28 students per class. However, my district also has a higher than average population of students with IEP and 504 plans. I teach the two-period-long humanities block classes. At the time of this inquiry, I had 18 students with accommodations and/or modifications (22% of my students). The year prior, I had 12 students with accommodations (17%), and 22 in the previous year (30%). In an effort to address the limited amount of student contact at my site, my district shifted to a modified block schedule four years ago, which has created two significant changes. First, with modified block schedule, I see each student only four days of the week rather than five. Second, two of the four days are two 45-minute periods blocked together, while the other two days have two 65-minute periods blocked together (the fifth day is the day I do not see that student). All of my math, science, PE, and elective colleagues have six sections of students compared to my three humanities block sections, but we all follow the same block schedule.

At the time of this study, I was an eighth-grade teacher of English Language Arts and U.S. History in an affluent suburban public middle school in the San Francisco Bay Area. I do not hold a special education credential. I taught in an inclusion classroom in which I typically had 72-84 total students, with 10-22 of them identified as needing additional support. Some of these students requiring additional support may have had an Individualized Education Program (IEP). Others may have had a Section 504 plan related to section 504 of The Rehabilitation Act of 1973. Additional students may have been the focus of a Student Study Team (SST). Moreover, some students may have had designated behavioral interventions.

I worked in partnership with 1-3 special education teachers, two school counselors, one district school psychologist, one district ELL teacher, and occasionally with speech, motor, and/or behavioral therapists as needed. I was also accountable to parents, two site administrators, and my district's Director of Student Services. I have found that the needs of my students for differentiation and accommodation are consistent, but my organization and communication around supporting these students is not consistent due to time constraints, the scope of the content, outside interruptions, limited training, and my overall number of students. I have tried using lists and reminder systems to manage the support of my students in these categories, but have found that the systems I have tried are unworkable because they are built using an elementary model in which the teacher has more contact with a limited number of students overall and a small number of students requiring support.

I was interested in implementing a new approach, one designed using a secondary model, which manages a much higher number of students. I wondered if I could locate, evaluate, select, and implement strategies designed for the secondary classroom, which would improve my specific accommodation practices and overall differentiation, ultimately improving my students' progress toward learning goals.

Purpose of the Research

This action research project was designed to explore if *universal design for learning* (UDL) strategies would improve student performance as well as several crucial areas of my practice including communication within the student support team (general education teachers, special education teachers, administrators, parents, and specialists). I selected my argument-writing unit as my focus for this research project. The UDL strategies I selected to include in my research were *redundancy*, *graphic organizers*, *slower delivery/pace*, and *outcome flexibility*.

My research project evaluated if using these UDL strategies enabled my students to show improvements toward learning goals. Secondly, this research examined if improvements were noted in my ability to consistently provide needed accommodations to my students with learning disabilities. Additionally, my project analyzed if improvements were noted in my communication with the student support team. This research used strategies that could be applied to a secondary classroom setting, which held the potential to both improve my practice and ensure compliance with the law.

Action Research Question

My action research project explored the question: *How will the implementation of universal design for learning strategies improve my eighth-grade students' progress toward learning goals?* It was my hope that the four UDL strategies selected for this research project would result in individualized results which realized each student's unique learning goals as defined by either an IEP, a state standard, or an individual target chosen by the student at the time of the baseline introduction.

Limitations

There were several limitations, which may have impacted the outcome of this research project. These limitations included time constraints, a small sample size of student participants, and an overlap of teacher-researcher roles. Each of these limitations was unavoidable and minimized to the extent possible by myself during my research. The time constraints for this research was limited to 10 weeks due primarily to the length of the writing unit selected for this study.

A small sample size may result in unintentionally influenced results if one or more factors swayed the outcomes of my research. A larger sample size would control for such

swings, as any outlier data would be more significantly outnumbered by typical data. The student sample was limited to my own sections of students. While balanced in terms of gender, the sample was not diverse in terms of race. Therefore, my research results may not be generalizable to more demographically diverse communities. Cultural differences were not explored in the present study, and more research in this area is warranted.

The overlap of teacher and researcher roles created a limitation because I was acting as both the researcher and the instructor facilitating the UDL strategies during my lessons, which had the potential to impact the students as well as the validity of their responses in their reflections. Furthermore, the participants in my research study were my own students. Therefore, my position as both teacher and researcher may have inadvertently influenced the course and outcome of my research.

Positionality of the Researcher

As a teacher-researcher, my beliefs about teaching and learning may limit my objectivity. I have long-held beliefs that if a student has not shown progress toward learning goals, then it is a reflection upon my own shortcomings as an educator. Additionally, my own biases are unavoidable. As the parent of a child with a 504 plan, I have experienced this issue as both educator and parent, and therefore bring both perspectives and history, positive or not, into my classroom. To reduce the influence of these inherent biases, I have employed the use of triangulated data collection methodology and member checking.

Additionally, I live within the community in which I teach. I recognize that the limited diversity in my classroom is also my lived experience outside of school within the greater community in which I live. Limited diversity has also largely been my lived experience growing up in a predominantly White area in another state during my own K-12 years. Having raised my

children in the same community and schools in which I now work, I have accepted and perhaps normalized this demographic more than I should. My own profile as a White, college-educated, abled, cis woman teacher equates to the norms within the teaching faculty at my site and the surrounding community at large. My objective is to remain as neutral as possible, however, and to avoid knowingly or unknowingly influencing research outcomes.

Definitions of Terms

Accommodation. Instructional accommodations are minor changes in *how* instruction is delivered and/or in how a student participates, without substantially altering curriculum or expectations (Baker & Scanlon, 2016).

Inclusion. A model wherein students with disabilities spend most or all of their time in the least restrictive environment (LRE) possible, as stated in the Individuals with Disabilities Education Act (IDEA). Placement is therefore in general education classes with peers who are not disabled to the maximum extent possible.

Individuals with Disabilities Education Act (IDEA). An act first passed in 1975 which serves as the nation's special education law. The law was established to provide a free appropriate public education (FAPE) to all students equitably. It also provides rights and protections for students with disabilities and their parents (Understood, 2019).

Individuals with Disabilities Education Improvement Act (IDEIA). Passed in 2004, this act updated the original IDEA in many areas, including strengthening provisions to reduce disproportionate representation of students from diverse cultures in special education. Changes also included methods used to identify students with learning disabilities, early intervening services, highly qualified teachers, discipline, and meeting accessibility standards (Council for Exceptional Children, 2019).

Modification. A modification changes *what* a student is taught or expected to learn. Students may have reduced workloads or shorter passages to read (Understood, 2019).

No Child Left Behind (NCLB). An act which affected every U.S. public school from 2001 through 2015. This law established that students receiving special education services would be included in general education classrooms and in standardized testing as well (Understood, 2019). This act was somewhat controversial because schools which did not meet standards would be penalized. Concerns were raised about the possibility of students with learning disabilities lowering the overall individual school scores on standardized tests.

Secondary school. A school setting, such as a middle school, intermediate school, or high school, in which students are no longer in primary or elementary grades.

Universal design for learning (UDL). A way of thinking about teaching and learning that gives all students equal opportunity to learn (Morin, 2019). UDL is not a one size fits all approach. Rather, the approach acknowledges that each student learns differently and therefore all modalities and necessary accommodations are included within the design.

Implications

The potential importance of my action research project was to explore the promising practice of incorporating four UDL strategies designed to ensure that students with disabilities will receive consistent and equitable access to argument writing lessons, content, materials, and activities within my classroom. If successful, my teaching practice would be further differentiated, supporting all of my learners. I would also be able to share my research with colleagues at my site and district, as well as possible future student teachers I may mentor, expanding the reach of my research beyond my own classroom. Additionally, if successful, my communication with the support team for my individual students needing accommodations

would become more consistent and complete. Further, my improved practice would fully comply with applicable law. Most importantly, my students would receive differentiated instruction in argument writing, which will prepare them for the rigors of high school level writing. The confidence and maturity that results from competent writing skills will carry through in multiple ways beyond high school, through college, and on into career pursuits.

Chapter II Literature Review

Students with learning disabilities in U.S. public schools are considered significantly at risk for lower academic achievement, repeating a grade, and dropping out altogether. The percentage of students with learning disabilities who successfully graduated from high school has historically tracked an estimated 20% below their peers who are not disabled (Samuels, 2015).

Despite federal and state laws created to protect students' with disabilities' equitable access to public education, in practice, secondary general education teachers can often lack guidance, training, and accountability. When inclusion is not consistently and effectively managed, especially in secondary school settings, public school classrooms cannot be equitable for students with disabilities.

Equitable access to a high quality public education for students with disabilities begins in the inclusion classroom. This idea is clearly reflected in Vygotsky's (1993) social constructionist view on disability and its practical implementation in contemporary inclusive education.

This action research project was designed to explore if universal design for learning (UDL) strategies would improve several crucial areas of my practice and communication within the student support team (general education teachers, special education teachers, administrators, parents, and specialists). The question which framed this project was *How will the implementation of universal design for learning strategies improve my eighth-grade students' progress toward learning goals?* My argument-writing unit was chosen as the focus for this research project. The UDL strategies I selected to include in my research were *redundancy*, *graphic organizers*, *slower delivery/pace*, and *outcome flexibility*.

Overview of the Literature Review.

Inclusion methods can vary on many different levels: by teacher, site, district, and state. The concept of inclusion, though codified into law, can still be interpreted differently resulting in dissimilar implementation. This chapter begins with a review of Vygotsky's social constructionist view on disability, in which inclusion is explained. The related research will focus on teacher and student perspectives of inclusion. Additionally, this research will examine other methods which have been explored for the purpose of improving the implementation of inclusion in general education classrooms. Acknowledgement and consideration of opposing points of view are presented. Finally, research into UDL as a means of providing inclusion in a secondary setting is provided.

The review of related research included self-directed and collaborative inclusion approaches, particularly UDL. Three broad questions were explored during the search for relevant research literature. First, what variables do educators and students perceive within the inclusion classroom experience? Second, how does UDL help inclusion teachers improve their practice? Third, how does UDL influence student progress toward learning goals? The review of related research included a search for resources using *EBSCO*, *ERIC*, *JSTOR*, *SAGE*, *Google Scholar*, *ProQuest*, and the *St. Mary's College database*. Key words used to search the databases included: *disability*, *inclusion*, *secondary*, *accommodation*, *special education*, *differentiation*, and *model*.

Theoretical Rationale

The two primary theories considered foundational for this action research project were L.S. Vygotsky's social constructionist view on disability as well as Anne Meyer and David Rose's universal design for learning (UDL). Both of these theories are the basis for the inclusion

of students who need additional support, regardless of cause. Their groundbreaking work directly challenges the notion of separating students with learning disabilities from their mainstream peers. Based upon these theories, an equitable classroom is an inclusion classroom. Their work also vastly informs the need for both further accessibility of curriculum and further research regarding best practices to enable equitable student access.

Vygotsky and disability in education. Lev Vygotsky (1896-1934) was a renowned Russian psychologist whose theories began significantly influencing the West with the translation and publication of his work beginning in 1962, well after his death. His work related to the learning disabled has received limited attention compared to his other more widely known theories. Vygotsky is primarily recognized for his zone of proximal development (ZPD) theory of child development as well as his three themes of social constructivism. While his theory of ZPD benefits all students, including those with disabilities, his theories related specifically to disability have significantly influenced this research project.

His volume *The Collected Works of L. S. Vygotsky, Volume 2: Fundamentals of Defectology* (1993) includes essays and lectures related to “*defektologia*,” a term he used which included physical, mental, and learning disabilities. Vygotsky intentionally focused on difference rather than defect. Friedgut (2008) asserted that Vygotsky “never called these children ‘defective’ or ‘handicapped’ but referred to them as ‘anomalous,’ insisting that, properly nurtured, they could attain levels comparable to their peers” (Smagorinsky, 2012).

In his book *Mind in Society* (1978), Vygotsky described his research into the deficit approach to the disabled, which segregated disabled students into their own separate schools or classes. He concluded that children with disabilities placed in separate schools or classes were not provided with the necessary challenges needed to develop higher skills or abilities.

Ultimately, these students lived down to the low expectations placed upon them (Vygotsky, 1978). Rather, Vygotsky advocated for the inclusion of the disabled into normative classrooms to create equity and further students' development both socially and academically. Vygotsky adds further description of the environment within special schools, describing how special and separate school spaces lock students into "the narrow circle of the school collective" which creates a small and secluded world wherein everything is adjusted and adapted down to the child's defect(s) (Vygotsky, 1993, p. 65). Instead, Vygotsky proposed changes that were quite revolutionary for the time. He described a new point of view wherein a child's disability should also be recognized for its positives because the "defect" creates challenges, which serve to stimulate problem solving, grit, compensation, and persistence (Vygotsky, 1978).

Vygotsky (1993) also identified a secondary disability which can present when children with disabilities are made to feel aware of their otherness, their defect. Awareness of pity, rejection, or even scorn reinforced feelings of inferiority or depression in that child. "Full social esteem," Vygotsky insisted, "is the ultimate aim of education inasmuch as all the processes of overcompensation are directed at achieving social status" (1993, p. 57).

Primary disorders (i.e. visual and hearing, language and speech-related, motor and CNS-related impairment) lead to the child's "*exclusion*" from the socio-cultural, traditional and educational environment – in turn causing *secondary* (socio-cultural) disability (Rodina, 2006, p. 11).

Vygotsky's theories were revolutionary in part because they offered equity to all learners. At the time of his research, equity did not exist for anyone other than White, abled men of financial means. Vygotsky's early death at the age of 38 meant that his work and theories are considered incomplete. Translation of his work is still ongoing. Early translations included many errors, making more current translations even more revealing of his theories and research. His research about children with disabilities is still largely unexplored. A study of the citation rate of

his *Defectology* volume found that, during 2012, this volume had been referenced 58 times out of the 23,183 total times his publications were cited in that year (Smagorinsky, 2012).

Universal design for learning. An equally important theory providing a framework for educators in inclusion classrooms is universal design for learning or UDL (Rose & Meyer, 2006). The explicit goals of UDL are to minimize barriers encountered by learners and maximize learning through flexibility, differentiation, and accommodation for all students (Rose & Meyer, 2006). These theorists propose that through UDL, every student, regardless of ability or disability, modality, or primary language, can access the instructional content and materials with greater success through the use of a lesson design that provides accommodations, scaffolding, technology, and a variety of authentic assessment choices that enable students to demonstrate their proficiency in accordance with their individual strengths. Maximizing options is a central goal of the UDL framework (Rose & Meyer, 2006).

According to Rose and Meyer, UDL allows for a level playing field for all students regardless of gender, race, and ableness, without the failed one-size-fits-all approach. Rather, UDL takes the radical view that there is no “normal” and that any attempt to define “normal” is inherently flawed. UDL acknowledges that every student has unique strengths and needs. The multiple methods approach of UDL allows for individual differentiation for all students, including both lower and higher achieving students. UDL is flexible, culturally responsive, and supports social-emotional development. By anticipating each student’s needs and designing instruction with student choice in mind, instruction and classroom activity can be accessible, relevant, and engaging, resulting in higher student self-worth overall. Assessment in a UDL framed classroom setting is described as a process rather than a single traditional summative

exam. Students are allowed to demonstrate what they have learned in a positive, self-selected manner (Rose & Meyer, 2006).

Digital instruction and internet literacy both play an important role in UDL. When technology is used in combination with traditional instruction and materials, diverse learners are more likely to be engaged because the learning environment is flexible, interesting, and conducive to higher levels of participation (Rose & Meyer, 2006).

UDL allows teachers to overcome one of the most significant barriers to learning: the traditional one-size-fits-all printed textbook. Conventional materials and methods usually result in only one option for teachers, which is to differentiate by providing supplemental materials to support the needs of specific students. Yet, as Rose and Meyer have pointed out, accessible curriculum is crucial. A foundational tenet of UDL is to provide accessible textbooks and curriculum. The driving idea behind this approach is that reaching every student is the beginning of teaching every student (Rose & Meyer, 2006).

A UDL environment supports equitable access to the curriculum, providing students with the resources and access they need to be successful. Rather than designing a lesson and then providing accommodations to specific students, all student needs are considered and addressed from the start of the lesson planning process.

These partnered educational theories provided a solid anchor for this action research in a secondary setting such as mine, with a higher than average population of students identified with learning disabilities. My promising practice was based on the belief that inclusion classrooms must be designed to include all students, regardless of ability. Without this goal, equity cannot be found.

Review of Related Research

Research into inclusion can be divided into two categories, elementary and secondary setting research, with elementary studies clearly outnumbering research within secondary classrooms. Therefore, because this project investigated inclusion in a secondary classroom setting, it was necessary to explore a wider variety of studies and journal articles. This diverse research offered varied viewpoints, allowing for a rich, comprehensive understanding of the problem and the various approaches toward a solution.

The review of related research began with foundational research into the variables secondary educators perceive within the inclusion classroom experience. Equally important and relevant, research into variables students perceive was also incorporated, acknowledging and honoring their worth and experiences in the inclusion classroom. Secondly, a closer investigation was made into the various practices and approaches being used to accommodate students with learning disabilities in secondary inclusion classrooms. Lastly, research into the use of the UDL framework was examined as a promising practice for increasing equity for students with learning disabilities in secondary inclusion classrooms.

The inclusion classroom in a secondary setting. In order to adequately view the variety of environments and structures within secondary inclusion classrooms, it was important to gather as many perspectives as possible, from as many stakeholders as possible. Research was conducted into teacher attitudes toward inclusion, both from the viewpoint of general education teachers and special education teachers. Additionally, research was sought into the perspectives of both experienced teachers as well as newer teachers, even those who were pre-service at the time. A range of research was reviewed from many regional locations as well as from rural to urban. The same was true for research into student perspectives, although such research was less

common. On the whole, while the research into the combined experiences in inclusion secondary classrooms was varied, the themes and perspectives which emerged in the data were clearly unified.

Teacher perspectives. One significant variable related to the successful inclusion of all learners is the willingness and ability of the individual general education teacher to accommodate students with learning disabilities. In a stressful environment of increasing demands and larger class sizes, inclusion teachers were found to be feeling overwhelmed and underprepared in general.

According to a recent national survey of 1,350 general education inclusion teachers, the number of teachers nationwide who felt “very well prepared” to teach students with mild to moderate learning disabilities, including dyslexia and ADHD, was less than one in five (Mitchell, 2019). At least one third of the participants reported they had never received any training or professional development on serving students with disabilities in their classrooms, with many indicating the topic was not included in their teacher preparation programs at all. Among general education teachers, only 30% felt strongly that they could successfully teach students with learning disabilities. One fourth of the survey respondents believed ADD/ADHD diagnosis originated from poor parenting. Just 56% believed IEPs were of value to students, and only 38% thought IEPs improved their teaching practice. In a separate survey in 2019, fewer than 15% of special educators felt their general education colleagues were highly prepared to work with students with learning disabilities. The report concluded with the statement, “When teachers feel negatively about inclusion, the feelings were driven by concerns and frustrations about their own ability to meet the students’ needs” (Mitchell, 2019, para. 19). Unfortunately,

this very recent and blunt message from America's teachers has received only limited attention from policy makers at the national and local levels.

Research by Hawpe (2013) examined secondary teachers' attitudes toward accommodations and modifications and their level of willingness to provide them. Accommodation is supporting student learning needs by changing how they are taught, whereas modification is supporting students by limiting what and how much they are taught. The study sample consisted of 500 secondary school teachers employed by Wichita Public Schools, an urban school district in Kansas of approximately 50,000 students. This study found that, while teachers in general viewed people with disabilities positively, their attitudes toward providing accommodations and modifications was mixed. Hawpe's (2013) research identified a correlation between teacher gender, grade level taught, teaching assignment (general or special education), and the presence of a personal disability, with their willingness to provide accommodations and modifications. For example, male teachers were less likely to provide accommodations than female teachers. Special education teachers were more positive about accommodations than general education teachers. Teachers in rural locations were less favorable toward inclusion than those in suburban and urban locations (Hawpe, 2013). Moreover, this study found that while teachers were generally willing to provide accommodations, many were unwilling to provide modifications for the students needing the most support.

While there are many obstacles preventing secondary general education inclusion teachers from providing the supports their students with learning disabilities require, there is also confusion and frustration regarding the question of whose responsibility it is to provide accommodations. Further research by Steffes (2010) explored the conflicts and questions secondary content specialist teachers have related to the inclusion of students with learning

disabilities. The study sample consisted of eight Colorado high school general education teachers. Four were math teachers, and four were English teachers. Three were male and five were female, ranging in years of experience. The study participants also represented a mix of urban and suburban school settings. This study identified many hurdles which prevent general education teachers from providing accommodations, and many of the participants disagreed with the policy of general education teachers having this responsibility, suggesting instead that it was the responsibility of the caseworker or the special education teacher in a resource class. One participant stated, "I think there needs to be more human beings to help with accommodations - it can be paraprofessionals, instructional coaches, or curriculum specialists." Another participant relied on paraprofessionals to implement accommodations (Steffes, 2010, p. 97). All of the study's participants agreed that students with learning disabilities deserve to be in general education classrooms where they should be provided with their specified accommodations, whether that be by the general education teacher, the special education teacher, or the caseworker. The participants overwhelmingly spoke out regarding equity on this issue (Steffes, 2010).

A research study conducted in Texas examined additional causes for confusion about the various roles of educators with respect to inclusion. The study sample consisted of 194 special education teaching candidates, evenly divided between elementary and secondary credentialing programs (Washburn-Moses, 2008). One of the themes which emerged from this study about teacher preparation programs was that many general education and special education credentialing programs were separate and often maintain differing philosophies (Washburn-Moses, 2008). "General education pre-service teachers are required to take few courses in teaching diverse learners, and special education pre-service teachers are not exposed to general

education content standards and curriculum” (Washburn-Moses, 2008, p. 79). Pre-service teaching candidates were therefore not adequately prepared for a collaborative relationship based upon a mutual understanding of roles and expectations (Washburn-Moses, 2008). Additionally, experienced general education teachers often had had no formal training related to students with learning disabilities since their pre-service training occurred prior to changes in the law after the enactment of IDEA and NCLB (Wilson, Floden & Ferrini-Mundy, 2001). Overall, there were many sources of the confusion over roles and expectations regarding inclusion, and no clear singular path to address it.

Surveys of general education pre-service candidates revealed similar results related to teacher preparedness. Nine of 10 pre-service general education candidates reported feeling that if given their own inclusion classroom, “they would be less than adequately prepared to instruct the student(s) with specific disabilities” (Rosenzweig, 2009, p. 17). The stark reality is that nearly 45 years have passed since IDEA became law, and yet teacher preparation programs have not significantly changed the way general education teachers are prepared for inclusion.

A discussion of teacher perspectives must also address the issue of equity. In a case study examining inclusion in Alabama, Mutua and Siders (2010) confronted head on the disproportionality of African Americans in special education. Alabama has a long history of segregation in schools, including abuses wherein special education was used as a tool to perpetuate racial segregation (Mutua & Sider, 2010). African Americans also have historically been underrepresented in programs for students with gifts and talents in Alabama schools. The researchers pointed out that in the two decades since inclusion implementation began in Alabama, the state had been very slow to make changes to its practices (Mutua & Sider, 2010). For example, seasoned staff and site personnel continued to use insensitive jargon, including

during IEP meetings, such as “EMR” and “TMR” (educable or trainable mentally retarded) (Mutua & Sider, 2010). In the year 2000, the *Lee v. Macon* consent decree was signed, which required the state to make significant changes in several areas such as the ways Alabama trained its teachers, provided remedial reading services, and evaluated pre-referral/referral interventions (Mutua & Sider, 2010). Implementation of the consent decree in 2008 led to substantial reductions over the following six years with respect to the number of African American learners placed in programs for the emotionally disturbed or intellectually disabled (Mutua & Sider, 2010). Data indicated the settlement, which also required a reevaluation of minority students, resulted in several hundred students who had been inappropriately classified as intellectually disabled being exited from special education (Mutua & Sider, 2010). According to the authors of the Alabama study, their findings corroborated the report from the Civil Rights Project of Harvard University which found that African American males nationwide were twice as likely to be identified as “mentally retarded” compared to their white counterparts (Mutua & Sider, 2010). In Alabama, that figure was determined to be three times as likely (Mutua & Sider, 2010). The authors of the Alabama case study assessed recent practices, concluding that it was necessary to tie inclusion to a classroom-based model.

Student perspectives about inclusion. Student voices should not be excluded from the conversation about inclusion. Student engagement is essential for the success of any academic intervention. Therefore, the discussion about the inclusion of secondary students with learning disabilities must include student perspectives.

In their recent study, Baker and Scanlon (2016) interviewed a focus group of 10 students enrolled in a suburban high school just outside an unidentified major city, resulting in a racially and economically diverse sample. Students at this particular school were somewhat tracked, and

co-teaching with a special education and a content-area teacher was common. Two distinct themes emerged from this study. First, students with learning disabilities absolutely did not want their peers to know about their accommodations or modifications for fear of being judged or isolated (Baker & Scanlon, 2016). The students interviewed described feeling “embarrassed,” or felt “weird” and “awkward” if their accommodations were obvious to their peers (Baker & Scanlon, 2016). Focus group students almost unanimously spoke about the “fairness” problem, in which peers who became aware of their accommodations complained that it was not “fair” for only some students to receive accommodations (Baker & Scanlon, 2016). Secondly, the study found a wide variability in student self-advocacy. Many students did not have a clear understanding of their own individualized accommodations. Those that did, indicated that they did not feel comfortable asking for accommodations. Additionally, most of the focus group students did not understand the school systems for inclusion or special education (Baker & Scanlon, 2016). However, the students in the sample indicated they valued the co-teaching structure within their school. Overall, this research indicated a need for positive collaboration between students, general education teachers, and special education teachers.

In another recent study, Witmer, Schmitt, Clinton and Mathes (2018) surveyed and interviewed both students and special educators to learn about their experiences and perspectives. The study explored the question of whether or not various accommodations were being used or provided as frequently as needed. This study appeared to be the first of its kind to include both teacher and student perspectives around this question. The sample participants consisted of 78 special educators from 10 different school districts in a midwestern state. The student sample included 19 students with reading-related disabilities from three different school districts, ranging between grades 4 and 12 (Witmer, Schmitt, Clinton & Mathes, 2018). An

interesting result of the study was that both groups appeared to place blame on the other for the lack of use of accommodations. Overall, the study suggested that it was the lack of effective communication which caused the failures to provide accommodations rather than concerns over the fairness and appropriateness of the accommodations themselves. Ultimately, the research findings suggested that in many situations, communication improvements may be necessary for both teachers and students regarding a student's accommodation needs (Witmer, Schmitt, Clinton & Mathes, 2018).

Additional research indicated that students with learning disabilities typically maintained similar attitudes and perspectives toward inclusion during their university years. The United Kingdom (U.K.) has used a medical model for its classification of student disabilities, creating clinical labels for learners, a deficit model which can create uncomfortable or marginalizing experiences for students with learning disabilities, which has caused some students to choose to remain invisible and struggle. This deficit model can also lead to frustration or intimidation for university faculty and staff (Matthews, 2009). A study conducted among incoming freshmen attending university in the U.K. found that students who needed support tended to hide their disabilities for various reasons (Matthews, 2009). The study sample included one humanities department at a university in Liverpool which is located in the northwest of England.

Approximately 150 first-year university students participated in an induction activity that used a social model of inclusion rather than a deficit model with its associated negatives. The social model of inclusion promoted a positive message of diversity rather than disclosure. The methodology of this study divided the students into six focus groups of approximately 25 students each, with a tutor coordinator placed in each focus group. Groups were asked to evaluate cultural sites in Liverpool for accessibility, to determine how closely it conformed to the

inclusive slogan “The World in One City” campaign (Matthews, 2009). During the activity, students were also able to discuss wider inclusion topics within society in general as well as specifically within their campus. Communication, respect, and inclusion were the main objectives. A total of 68 student-written reviews of cultural sites were examined by the researchers for references to inclusion. Of the 68 student reviews, only 23 explicitly referenced the inclusiveness or accessibility of the cultural sites evaluated (Matthews, 2009). Matthews concluded that there is still work to be done with respect to using the social model of inclusion at the university level to emphasize inclusion and sensitivity in the hopes that stigmas will diminish, and students with learning disabilities will feel comfortable and empowered to ask for the help they need (Matthews, 2009).

Taken together, these research studies offer the following take-away ideas. Ultimately, the first step toward best practices in any classroom is closely listening to those already in the trenches working through the everyday struggles experienced by teachers and students alike. Effective inclusion cannot be obtained through any program that does not first consider input from the students themselves and their teachers. Gathering the perspectives of all those involved is both a measure of respect and valuable data. Inclusion is not likely to succeed if these integral perspectives are excluded.

Options and perceptions related to the secondary inclusion classroom. Just as there are many opinions about including students with learning disabilities in general education classrooms, there are diverse opinions about possible solutions as well. While the options can vary widely depending upon district size, funding, and staffing, ultimately, districts must comply with the law. Because federal law does not specify how districts are to comply, the solutions can

dramatically differ. However, the need for districts to move forward toward inclusion is writ large despite some voices suggesting inclusion has already gone too far.

Management model. The first and most common inclusion model explored was the *management model*. A typical secondary inclusion teacher is tasked with the challenge of remembering and implementing the individual needs of each student with learning disabilities in their classroom. Another study conducted by Scanlon and Baker (2012) set out to interview secondary teachers about best practices related to the implementation of student accommodations. The study sample consisted of 12 secondary high school teachers from a suburban community near a major metropolitan northeastern city. The school had adopted a co-teaching approach to inclusion. Of the 12 teachers in the sample, five were special education teachers. A series of three focus group discussions were held. The primary discussion topic was “elucidation of an accommodations model and the policies, actions, materials, dispositions and so on necessary to enact it” (Scanlon & Baker, 2012). The analysis resulted in an accommodation model composed of three phases: preparation, provision, and evaluation. In phase one, educators identified student accommodation needs, identified the specific accommodations, and prepared to provide accommodations. For phase two, they provided accommodations and monitored. In phase three, educators continued to monitor and also evaluated (Scanlon & Baker, 2012). The researchers detailed each of the steps within each of the three phases of this comprehensive model. The researchers concluded with a nod to universal design for learning which was brought into the discussion by the participants (Scanlon & Baker, 2012). While the management model created a framework for providing accommodations, it seemed to place an additional workload upon the general education inclusion teacher without

addressing the increasing number of students with learning disabilities and did not address the problem of remembering specific student accommodations.

A second inclusion model is known as the *consultative teacher model*. This model is not to be confused with co-teaching. In the consultative model, the general education teacher and the special education teacher do not co-teach a class. Rather, they share a planning period in which they may consult with one another about their shared students' needs and accommodations (Carpenter & Dyal, 2007). This level of collaboration required an intentional partnership between teachers and administrators to ensure the master schedule allowed for teacher pairings of planning periods. Each school had its own unique needs for its special educators. Some options discussed in this study included having the prep period for the special educator rotate at those sites with special educators who needed to consult with multiple general education teachers. Other sites scheduled IEP meetings during the special educators' planning periods, which would make collaboration during prep periods a challenge. Some sites used an early/late schedule to allow for more collaboration opportunities. The overall goal was to increase communication and collaboration between special and general educators to benefit their shared students. The logistics for enabling this model, however, can be complex.

A third model is referred to as the *BIG accommodation model*. This model is also known as the *direct instruction model*. Implementation of this model includes a focus on big ideas, concepts, and principles which translate across content areas. This model also incorporates teaching problem-solving strategies, mediated scaffolding, judicious review, and strategic integration of new learning (Grossen, 2002). A study applying this model to an entire school was conducted at Goethe Middle School, a low-achieving middle school near Sacramento, California with a population of highly at-risk students (Grossen, 2002). The selected school was noted to

have a 95 percent rate of free or reduced-price lunch. Ninety-one percent of the enrolled students were minorities, and approximately 40 percent were English learners (Grossen, 2002). The implementation of the BIG accommodation model involved scripted lessons and in-class training of teachers. Results included reduced frequency of behavioral problems, and significantly improved standardized assessment results within one year of implementation (Grossen, 2002). Over time, direct instruction has fallen out of favor, but in the case of chronically low-achieving schools, this study indicated direct instruction can lead to dramatic success (Grossen, 2002). For example, after the implementation of the model, the gains that Goethe showed in reading ranked fifth highest in the state after one year (Grossen, 2002). However, teacher feedback about the BIG model was not always positive, as some spoke out against robot-like direct instruction methods and the requirement to deliver scripted lessons with fidelity.

Opposing perspectives and barriers surrounding inclusion. Some have argued that research into inclusion has only shown weak evidence that students with learning disabilities are experiencing benefits. Further, they contend that inclusion had a detrimental impact upon both abled peers and teachers (Gilmour, 2018). In her article, Gilmour (2018) questioned the rationale behind inclusion, suggesting that inclusion was enacted into law without a robust base of evidence supporting its effectiveness. She posited that the federal government offered little guidance on how inclusion placements are to be determined, without consideration of potential disruption to abled peers and teachers (Gilmour, 2018). The author also argued that it was hypocritical to assume students with learning disabilities will succeed in a general education classroom. Gilmour wrote, “Such an assumption ignores the fact that students are found eligible for special-education services precisely because they are failing to progress in general education” (Gilmour, 2018). The author provided correlational studies which, on their face, appeared to

support her position about alleged negative impacts upon the peers and teachers of students with learning disabilities in the inclusion setting. What the author did not concede was the presence of IEP accommodations as the support needed for the student to succeed in the inclusion classroom environment.

Other barriers to inclusion included power, relevance, fear, low expectations, and funding, according to Smith (2010). Smith thoughtfully dismantled each of these barriers. For example, the research found educators who did not believe inclusion worked because they felt students with learning disabilities would not benefit from instruction and therefore did not provide it. Yet, in truth, the amount of noninstructional time was actually greater in segregated classrooms (Smith, 2010).

The state of Illinois was an interesting case study in its opposition to inclusion (Owen & Gabel, 2010). The authors provided a detailed history of Illinois' resistance to changes in the responsibility to educate students with learning disabilities in the least restrictive environment (LRE). For example, Illinois schools' continued use of insensitive terminology, such as "mental retardation." Additionally, Illinois continued to use segregation by giving deference to school district personnel, allowing them the flexibility to segregate students if "the school district personnel thought it more appropriate" (Owen & Gabel, 2010, p. 97). Even after recent court cases, Illinois still ranked "well below the national average of educating students with disabilities in the general education classroom" (Owen & Gabel, 2010, p. 96).

Inclusion and equity. A comprehensive conversation about opposition to inclusion cannot be complete without a discussion about the intersection between inclusion and equity. Is resistance to inclusion based on race and poverty? Michigan offered an alarming case study. Research indicated three dominating factors influenced if a student is segregated or placed into

an inclusion classroom. The three dominant factors were per capita income, racial composition, and special education costs (Leroy & Lacey, 2010). The researchers found that “Specifically, districts with high per capita income, homogeneous and predominantly white populations, and low individual special education student costs had higher inclusive education placement rates” (Leroy & Lacey, 2010, p. 114). Moreover, the researchers found that after disaggregating the data, their investigation revealed a clear view of exclusion based on district and student demographic characteristics (Leroy & Lacey, 2010).

New York’s District 75 was a clear case study about how New York doubled down on urban segregation according to research conducted by Connor (2010). The author examined how minority students were doubly segregated, first by race and poverty, and second by cognitive impairment. In creating District 75, New York had chosen to affect a continuation of urban segregation, according to research conducted into the practice of isolating students with cognitive impairments, into a single city-wide district consisting only of students with disabilities (Connor, 2010). This case study also included startling anecdotal stories of what parents of children placed in District 75 experienced as they confronted the city’s system of segregation. One parent was quoted as asking, “Is this legal?” (Connor, 2010, p. 172). Within District 75 schools, students were further segregated. One example in the case study was particularly illuminating about the degree of segregation. After a New York-based Hispanic community organization put pressure on the district to move students with moderate to severe disabilities back to their original school, the Hispanic community later objected to the self-imposed segregation of Hassidic disabled students in another program within the same building (Connor, 2010). New York and other states maintained that they could circumvent the requirements to

report statistics to the federal government about District 75 because these were not *schools* but were instead *programs* (Connor, 2010).

California was not without its own restrictive barriers to inclusion placement. Research by Nusbaum (2010) identified three anecdotal stories of segregation by school districts located in California. While each of the three stories varied decidedly from one another, there was a common theme: “All demonstrate the subtle and obvious efforts at coercion and intimidation on the part of school professionals to place students in increasingly restrictive educational settings, and that school professionals will go to great lengths and great costs in their attempts to do so” (Nusbaum, 2010, p. 120). The researcher concluded with a lament that these students would be better served by the use of professional knowledge to help discover why a student might not be succeeding and how they can be successful instead of school professionals pointing to student failures as reasons not to place them in inclusion settings (Nusbaum, 2010).

After the review of available literature was completed, it became clear that the evolution of inclusion policy is multifaceted and still ongoing. Overall, it is apparent that opinions are in conflict and solutions are for the most part incomplete. A common strand within the research, however, was the presence of one growing idea. Can the inclusion classroom become accessible for all students without creating further burdens upon the inclusion teachers?

Implementation of universal design for learning. Inclusion has evolved over time and in different ways throughout the states, and the approaches used by educators in the inclusion classroom have changed and improved over time as well. However, based on the questions my research was asking, a solution for secondary inclusion classrooms seemed almost too specific to result in any promising practices. Therefore, it was necessary to explore a more global approach. Through this wider lens, it became more and more apparent that a universal approach was

needed, which would include students of any grade with any disability. UDL stood out among the field.

Inclusion is increasing: UDL is a solution. Despite the objections noted earlier toward inclusion, the number of students with learning disabilities receiving placements in inclusion classrooms slowly increased as the systems of segregation were being dismantled in many states. Unprecedented shifts in both the identification and placement of students with disabilities occurred between 1990-2009 (McLeskey, Landers, Hoppey, & Williamson, 2011). These statistics clearly showed that students with learning disabilities must be ensured a high-quality education. Educators must provide accommodations with accountability to ensure effective inclusion, particularly in a secondary setting. Research suggested that one of the most promising practices currently available to secondary inclusion classroom teachers is universal design for learning (UDL).

Recent research into the application of the UDL framework revealed promising results, especially in a secondary school setting. A 2017 article by Smith and Lowrey summarized current UDL research and connected it to recent national goals established by the American Association on Intellectual and Developmental Disabilities (AAIDD). Smith and Lowrey (2017) observed that “At its core, the UDL framework seeks to further realize meaningful access to and participation in the demands of the general education curriculum and settings, and to promote positive learner outcomes” (Smith & Lowrey, 2017, p. 48). The 10-year goals created by the AAIDD had two foci established around UDL. They are briefly summarized as:

1. Evaluate specific applications of a UDL framework, and
2. Research the efficacy of UDL as an inclusive framework (Smith & Lowrey, 2017).

The relevance of UDL has continued to be identified in both Federal policy and many state initiatives. For instance, UDL was included in the *National Technology Education Plan of 2016*.

It was also part of the *Every Student Succeeds Act of 2016*, and the *Higher Education Opportunity Act of 2008* (Smith & Lowrey, 2017). The authors pointed out that studies regarding UDL were limited and varied significantly in implementation, stating more research is clearly needed.

UDL has been shown to reduce segregation of students based on their perceived abilities. According to an article by authors Villa, Thousand, Nevin, and Liston (2005), “Differentiation has evolved to what now is known as universal design for learning (UDL)” (p. 35). The article describes UDL as follows:

UDL is an educational application of universal design principles developed and used by architects, product designers, engineers, and environmental design researchers. It is used to make products, communications, and the physical environment usable to as many people as possible at little or no extra cost. UDL, then, refers to the creation of differentiated learning experiences that minimize the need for modifications for particular circumstances or individuals (Meyer & Rose, 2002; Udvari-Solner, Villa, & Thousand, 2005, p. 35).

UDL reduces the segregation of students by performance level or perceived abilities (Villa et al., 2005). UDL enables students from different backgrounds and various learning styles to access curriculum, materials, and school environments (Meyer & Rose, 2002). The article continued with testimonials from 20 educators about UDL implementation in secondary classrooms. An impactful statement by one of the educators interviewed provided both a goal and summary for UDL implementation: “My attitude has changed. I once had a negative attitude about having students with disabilities in my class and saw it as a burden. Now, working with the special educator, I see the changes, and look forward to making education work to ensure the success of all students” (Villa et al., 2005, p. 47).

UDL allows for a great deal of flexibility when it comes to implementation. UDL can be implemented by an individual teacher, or by a group of teachers using a collaborative approach.

The UDL framework includes a seemingly endless list of implementation options for teachers to select what they feel will work within their individual classrooms. The list of implementation options also allows teachers to select options which they believe will be a good fit for their individual students and site-specific community.

UDL theorists and co-creators, David Rose and Anne Meyer, also established a nonprofit organization known as CAST, which stands for *Center for Applied Special Technology*. CAST was founded in 1984 and has multiple website resources available for educators. A foundational resource known as the *Universal Design for Learning Guidelines*, is posted on their website. The guidelines divide the learning process into three segments, the why, the what, and the how of learning. The why is described as *engagement*. The what is described as *representation*. The how is described as *action & expression*. Each of these segments have multiple subcategories which create guidance for educators regarding how students can access, build, and internalize their learning. The goal of UDL is to create expert learners who are purposeful and motivated (why), resourceful and knowledgeable (what), and strategic and goal-directed (how) (CAST, 2019).

UDL shows promise for the inclusion general education classroom; but as stated in the reviewed literature, more research is needed, especially in a secondary setting. The opportunity to explore UDL in my classroom enables me to contribute to the available research specifically through the lens of a general education secondary classroom. My research, which focused on students with learning disabilities, adds an additional dimension related to equity in a secondary setting.

Summary

The literature review identified recent related research which clearly identifies flaws, shortcomings, irregularities, and legal conflicts within the nation's current approach to the

inclusion of students with learning disabilities. The current status of inclusion is unacceptable and positive change is necessary. First, the literature related to teachers' and students' perspectives on inclusion was explored (Mitchell, 2019; Hawpe, 2013; Steffes, 2010; Baker & Scanlon, 2012). Next, the relevant literature examining alternative models and opposing opinions was reviewed (Scanlon & Baker, 2016; Carpenter & Dyal, 2007; Grossen, 2002). Lastly, the relevant research exploring the possibilities of the UDL framework was discussed (McLeskey, Landers, Hoppey, & Williamson, 2011; Smith & Lowrey, 2017; Villa, Thousand, Nevin, & Liston, 2005; Meyer & Rose, 2002). Based upon the literature reviewed, the UDL framework shows promise with regard to providing increased access, equity, and collaboration for learners and educators alike. According to the reviewed literature, other inclusion models have fallen short with respect to barriers such as cost, effectiveness, and rigidity. The UDL framework shows promise based upon the flexibility it offers teachers and the opportunity for increased implementation of student accommodations. UDL answers positively to the concerns and goals voiced by the teacher and student perspectives described earlier in this chapter. There is a distinct gap in the literature related to the UDL model for inclusion in secondary general education classrooms, especially in the middle school. My searches did not uncover any studies specific to the use of the UDL framework in a middle school setting. The review of related research has informed my own action research project because UDL is affordable, simple to implement, and more agile than the alternative inclusion models I located. Chapter III presents the research design, the study sample population, data collection procedures, and the statistical analysis of this action research project.

Chapter III

Methods

Currently, federal law requires students with learning disabilities to be placed in the least restrictive environment possible, usually as part of an inclusion method (Villa, 2015). At the secondary level, general education teachers have difficulty adapting to a more diverse group of learners and the wide variety of accommodations needed to ensure these students successfully access the curriculum. Often, secondary general education inclusion teachers struggle with managing the needs of the gradually increasing numbers of students with disabilities. Additionally, a disproportionate number of minority students have historically been miscategorized as needing special education services. General education teachers often lack the direction, training, and support needed to create an equitable classroom in which learners are able to make progress toward learning goals (Mitchell, 2019; Rosenzweig, 2009).

A review of available related literature indicated a limited amount of citations at the secondary level with regard to the inclusion of students with learning disabilities in general education classrooms (Katz & Sokal, 2016). Foundational research by Vygotsky (1993) identified that students with disabilities were historically excluded and placed into inferior schools offering limited challenges and low expectations, which resulted in limited growth among these learners. His research pointed toward an inclusion approach which offered supported learning for students with all kinds of disabilities.

A growing body of related citations was also reviewed which looked at the variety of approaches available to address the issues of inclusion, disproportionality, and equity. Several of these studies indicated that at the secondary level, students with learning disabilities were not being adequately served, which impacted equity (Hutchison, 2018; Baker & Scanlon, 2016;

Connor, 2010; Hawpe, 2013; Howard, 2010). Additional literature suggested that the inclusion of students with learning disabilities has gone too far and has resulted in detrimental impacts upon general education students and their teachers (Gilmour, 2018). For example, a review of qualitative studies indicated that general education teachers reported feeling inadequately trained or unprepared for the challenges of inclusion (Mitchell, 2019; Rosenzweig, 2009). Some teachers felt overwhelmed and burned out because of the increasing demands to manage a wider range of abilities, disabilities, and accommodations, in combination with behavioral elements as well. Teachers also reported that general education students have been negatively impacted by inclusion because they were not receiving adequate attention while students with disabilities were receiving significantly more attention. During my review of related research, I encountered many differing approaches to effective inclusion, such as the co-teaching model (Baker & Scanlon, 2016), the BIG accommodation model (Grossen, 2002), and the consultative teaching model (Carpenter & Dyal, 2007). Based upon the variety of inclusion models and the widely ranging attitudes toward inclusion, it was clear that a research-based solution was needed at the secondary level.

The purpose of this study was to determine if one of the secondary inclusion models would be a good fit for my students with learning disabilities. My goal was to implement one model and document the impact, if any, upon my own inclusion students' performance as well as on my communication within the support team. One inclusion model stood out among the research, offering a variety of tools and strategies for the effective inclusion of all learners. Universal design for learning (UDL) is a practical and promising practice which is both student-focused and adaptable to a variety of needs within the classroom. In the UDL approach, lessons are designed which include all learners' needs, incorporating all modalities and necessary

accommodations into the lesson design process (Rose & Meyer, 2006). The goal of UDL is to push through barriers and create supports in academic spaces with students of varying abilities and needs. Examples of UDL pedagogy include offering assorted ways for students to access, process, and represent their learning (Katz & Sokal, 2016). UDL has the potential to become the solution that secondary inclusion teachers need, but additional research is necessary to determine its effectiveness.

This action research project examined the question: *How will the implementation of universal design for learning strategies improve my eighth-grade students' progress toward learning goals?* The first of the four UDL strategies selected for this intervention was providing graphic organizers for argument writing to all of my students rather than to only my students with that specific accommodation. The second UDL strategy utilized in this intervention was providing all resources and tools to my students in advance at the beginning of the unit rather than providing them individually with each corresponding mini lesson. The third UDL strategy was taking a slower pace, in both the number of weeks for the unit and during my presentation of the mini lessons. The final UDL strategy incorporated into this intervention was offering a choice of final outcomes, such as a video, a live presentation, a website, or a podcast among others, rather than requiring all students to produce a five-paragraph essay. It was my hope that the four UDL strategies selected for this research project would result in individualized results which realized each student's unique learning goals as defined by either an IEP, a state standard, or an individual target chosen by the student at the time of the baseline introduction.

Setting

This study was conducted in a public middle school located in an affluent suburban city in Northern California. The school was constructed in the early 1960s. The city population in

2017 was just below 20,000, with a median household income of just above \$185,000. At the time of the study, California ranked 44th in the nation in per-pupil funding. In this city, local funding from the parent community remained high to offset the low percentage of state funding received by the city's TK-8 district. None of the five schools within the district were Title I designated. The city's non-profit educational foundation reported a donation of over \$1.5 million to the district in the 2018-2019 school year, which was distributed between the middle school and the four elementary schools. At the middle school, parent club and foundation donations funded the two full-time guidance counselors, as well as courses in Spanish, French, woodworking, MakerSpace, robotics, computer programming, television broadcasting, web design, computer graphics, choral music, band, strings orchestra, jazz band, art, sculpting, cycle, leadership, yearbook, video production, debate, public speaking, and drama. Moreover, the school had a library learning center with full-time librarian staff. Additionally, the school provided an inclusion program for students with special needs and disabilities which included two periods of community-based instruction/skill development. This inquiry is vitally important because despite district resources, community support, and qualified staff, the inequity faced by secondary students with learning disabilities in the district persists. This research was conducted to improve the level of support available for students with learning disabilities in the secondary setting.

At the time of the study, the school population was approximately 900 students in grades 6 through 8. Male identified students were estimated at 55%, and female identified were approximately 45%. The racial and ethnic makeup of the school was as follows: 64.5% White or Caucasian, 18% Asian, 6.1% Latinx, 2% Black, and 1.5% American Indian/Alaska Native/Filipino/Native Hawaiian/Pacific Islander. School enrollment also indicated that 0.6% of

students were English learners. Students with disabilities were reported as 10.8% of the student population. Socioeconomically disadvantaged students were reported as 2.6% of the school population according to the School Accountability Report Card (SARC).

Student achievement results for the 2017-2018 California Assessment of Student Performance and Progress (CAASPP) showed that 87% of the school's students in grades 6-8 met or exceeded state standards in English Language Arts (ELA), and 82% met or exceeded state standards in math. The school's ELA scores were 37% higher than the statewide CAASPP average of 50% for ELA. The school's math scores were 44% above the statewide average of 38% for math.

All 50 of the school's teachers were fully credentialed, with none found to be teaching outside their subject area of competence. There were approximately 35 female-identified and 15 male-identified teachers on staff at the time of the study. The racial and ethnic makeup of the teachers was as follows: 90% White or Caucasian, 4% Asian, 4% Latinx, and 2% Two or More Races. Additionally, 40% of teachers held advanced degrees in education, administration, or in their particular subject area field.

Demographics of the Classroom

At the time of the study, there were roughly 900 students enrolled in the school, and of those, one-third were in the eighth grade. Of that number, approximately 70 eighth-graders represented the three sections of students assigned to my classroom. A subset of my assigned students was selected for this research study in order to observe the students with learning disabilities within an inclusion general education classroom.

The study sample consisted of 18 students who ranged in age from 11-14. Within the sample, five students identified as female and 13 as male. The racial and ethnic makeup of the

student sample was 65% White or Caucasian, 17.5% Asian, 12% Latinx, and 5.5% Two or More Races. None of the students were designated as English learners (ELL). The sample was comprised of students with IEP, 504, or SST designations. Seven students had IEP plans, eight with 504 plans, and three with SSTs.

Data Collection Strategies

In order to determine if universal design for learning strategies improve student progress toward learning goals, multiple data collection methods were employed. This study utilized two quantitative data collection strategies: student writing scores, and student journal reflections. Additionally, a qualitative measure in the form of teacher field notes was utilized.

Writing scores. Scores for the student baseline, the student process paper, and the final project were collected using an argument writing checklist that I created (see Appendix A). A year ago, my department moved away from using detailed rubrics and instead began to use shorter, student-friendly checklists for writing assessments. The argument writing checklist was a quantitative data collection tool. A blank copy of the argument writing checklist is provided in Appendix A. For the baseline, students were provided a prompt, titled “Change My Mind”. The prompt is provided in Appendix B. Both the baseline and the process paper were scored using the same checklist. Students wrote a five-paragraph essay on a topic of their choice. The argument writing checklist measured student progress toward the department expectation and grade-level standards with respect to structure, development, and writing conventions. Students used the checklist to plan and develop their essays as well as to provide feedback to their writing partner. As a summative assessment at the end of the intervention, the argument writing checklist scores for the baseline writing and the final draft were compared. The data were analyzed to determine student growth toward individual learning goals over the course of the intervention.

The final draft was used as a script to create the final outcome presentations. A final comparison was made between the student growth demonstrated for the argument writing unit in which the UDL intervention was implemented in contrast with the student growth noted during the prior narrative writing unit during the fall which did not include the implementation of the UDL framework and strategies.

Teacher field notes. Secondly, detailed teacher field notes were taken during the intervention. The notes used in this study were taken during the writing workshop sessions, either during or after the workshop. Please see Appendix C for the form used to collect teacher field notes. Writing workshop sessions occurred from two to three times per week throughout the intervention. The teacher field notes were focused on documenting student progress, or lack thereof, related to the individual student learning goals. Additionally, the field notes also collected data regarding attendance, technology, engagement, productivity, and conferring with feedback. These notes were useful for not only assessing student engagement, but also to inform my instruction, student groupings, and capturing the frequency of student success or frustration.

Student journal reflections. Student journal reflections were collected at the start and end of the intervention. A one-page form was used for students to complete their reflections (Appendix D). For example, the first student journal reflection included three sections. The first section was a Likert scale using four statements. The four statements were related to students' attitudes toward argument writing. The Likert scale asked students to indicate if each statement was one of the following: *very much like me* (5 points), *somewhat like me* (4 points), *neutral* (3 points), *not much like me* (2 points), or *not at all like me* (1 point). The four statements in the first journal reflection were: *I have struggled with argument writing in the past; I find argument*

writing interesting or fun; This year's unit looks interesting/fun to me; and I am a confident argument writer.

The second section of the preliminary reflection form asked students to choose two argument writing goals from a provided list of nine goals. Please refer to Appendix E for the complete list of nine writing goals. The final section of the first student journal reflection form was a brief constructed response to a focus question. For the first journal response, the focus question asked students to explain the reasoning behind their choice of their two writing goals. The reflection forms were collected, reviewed, and copied. Once the reflection forms were reviewed, they were then returned to students for attachment into their journals. Each student was expected to complete two of these student journal reflections over the course of the intervention. Each student journal reflection followed the same structure: the Likert scale attitude measure, a goal evaluation section, and a brief constructed response to a focus question. Please refer to Appendix D and E for a blank copy of each of the student journal reflection forms.

Data collected through student writing scores, teacher field notes, and student reflections were then subsequently triangulated to allow for a rich and multi-faceted understanding of student progress. The triangulation process is crucial to prevent a one-dimensional result. Rather, by using three data collection instruments, the teacher-researcher can avoid flawed or biased data. The three instruments selected for this research were chosen for the purpose of capturing information beyond a singular measure of progress over time. My intent using this approach was to gather data specific to my students with learning disabilities in response to the action research question.

Procedures

The sample size of students in this study was 18 students in a non-Title 1 school. The students in the sample were all in the eighth grade and in a two-period humanities block class setting. There were three sections of students. The first section had 25 students, seven of which were participants in this study. The second section had 25 students, with four participants. The last section had a class size of 22 students, with seven participants. The study length was 10 weeks from January to February, and the intervention was conducted over eight of those 10 weeks.

Pre-intervention. Phase one of this study was a one-week pre-intervention section of the study with a focus on establishing student baselines for argumentative writing. A baseline argument writing task was assigned prior to the intervention to determine where each student was performing in relation to eighth-grade state writing standards. Students were not provided any argument writing resources or instruction prior to this task. The baseline writing prompt was an image of a familiar meme projected on the class TV monitor and provided in the Google Classroom task assignment (Appendix B). The meme image was of a man seated in a chair at a table with a sign containing the subtext “Change my mind.” Students were invited to select their own pro-con topic and write a letter to me arguing for their position on the subject.

Also in phase one, students were tasked with completing an initial journal entry to establish their attitudes toward argument writing and writing in general. Students were also directed to select a personal informal writing goal for the unit. I also reviewed the individual writing goals for students with IEPs.

Intervention. Phase two of the research consisted primarily of the intervention using the four targeted UDL strategies but presented within a Columbia Teachers College writers’

workshop structure, which is the curriculum and structure used at the school (Calkins, 2014). This eight-week phase consisted of mini-lessons, conferring sessions, and student journal reflections. On average, each week of this phase contained two to three mini-lessons and one individual or small group conferring session. Phase two culminated in a five-paragraph process paper supported by graphic organizers for each paragraph. The process paper became the basis, or script, as each student prepared for their final culminating argument project. My intervention explored if the four UDL strategies I utilized enabled students to meet their differentiated learning goals and enable a sense of success in their argument writing.

Within the UDL redundancy strategy, I supplied all of my students at the beginning of phase two with lecture notes, samples, and instruction guides in multiple forms, such as online attachments in Google Classroom, printed copies as handouts in class, visuals such as slides or videos during class, and verbally through direct instruction of mini-lessons. In the past, I have presented or posted these items one at a time as we progressed through the unit. However, using the UDL redundancy strategy, the goal was to allow all students to preview the entire unit, all the provided resources, and each of the steps within the process. Redundancy allowed all of my students to plan their writing in the manner that supported them best individually.

Within the UDL graphic organizer strategy, I supplied all of my students with graphic organizers for each paragraph or section of their written argument process paper. A sample of one of the graphic organizers is provided in Appendix F. I have had students with learning disabilities in the past who have had an accommodation to use graphic organizers for writing. I have always been aware that this accommodation may make these students feel uncomfortable or “outed” among their peers by indicating they need special support. Rather, by providing all students with the graphic organizers, everyone had access to organizational tools, which could

improve the structure and completeness of the written outcomes without fear of stigmatizing students with accommodations.

Within the UDL strategy of slower delivery and pace, I consciously slowed down my own speaking speed while delivering mini-lessons to the class during writers' workshop, allowing opportunity for greater emphasis on key ideas while also increasing student understanding of my expectations. Additionally, I extended the length of the overall unit by two weeks to allow for a more manageable pace for all of my writers. The additional time due to the slower pace made room for supplemental conferring with writers, as well as more frequent opportunities for writing partners to work together to improve their drafts.

Post-intervention. In phase three of the research, students were tasked with presenting their final culminating projects to the class. Within the UDL strategy of outcome flexibility, I widened the final outcomes available for students to demonstrate their progress toward learning goals. For the final project, students had a choice of presentation format: a live oral presentation using TED Talk style, a video recording of an oral presentation similar to a TED Talk, a website/blog, a podcast, or a visual representation such as a painting, cartoon strip, or pop-up book. This flexibility enabled students to choose the outcome they felt would be the most successful for them individually in order to demonstrate their new learning. Student presentations were to be made before an authentic audience of their peers. During phase three, students also wrote their post-intervention reflection about both their attitude toward this writing unit as well as their personal progress toward their chosen writing goal(s) from week one.

Plan for Data Analysis

All three data sources were collected to respond to the question: *How will the implementation of universal design for learning strategies improve my eighth-grade students'*

progress toward learning goals? Study participants wrote a baseline essay, a process paper, and were to complete a final project, which I scored and compared using the writing checklist. I compared the rate of growth in this unit to an earlier narrative writing unit. Additionally, I kept a detailed log of teacher field notes, which were taken several times per week and compiled into both physical and digital files. Lastly, student reflections were collected and reviewed. The Likert scale section of the student reflection was scored individually for each participant using the point values 1-5 as described earlier in this section. The four Likert statement scores for each student were combined into a single overall Likert score per student. Then, a mean Likert score was calculated for the combined participants using their individual Likert totals. The teacher field notes were coded by recurring terms or phrases to establish global themes which were captured and recorded in the teacher field notes journal. Collectively, these data provided a triangulation of data which captured multiple perspectives for consideration during data interpretation. Triangulation allowed for an accurate understanding of how UDL strategies impacted my students' writing.

Summary

The focus of this action research study was to investigate the effect universal design for learning strategies would have on student writing progress made by suburban eighth-graders. I had noticed that my students' writing ranged widely, and I hoped I would find an intervention strategy that would improve all student writing toward learning goals. The UDL intervention took place over 10 weeks and was divided into three phases. Data were collected through the use of writing scores, student reflections, and teacher field notes. Participants self-selected their own writing topics and final presentation format.

This chapter introduced the setting for my action research, the study participants, the triangulation of data through instruments utilized to collect and measure participant progress, the intervention procedures, and the methods used to collect and study data. The following chapter details the data collected during the study and its analysis.

Chapter IV

Findings

The purpose of this action research project was to study the effect of universal design for learning (UDL) in a secondary general education inclusion classroom. Thus, the action research question was: *How will the implementation of universal design for learning strategies improve my eighth-grade students' progress toward learning goals?* I have struggled over the years with managing the number and variety of student accommodations for my students with IEPs, 504s, and SSTs. My inability to consistently and fully accommodate my students with learning disabilities can have a profound impact upon their academic and social success. I attribute my struggle to several factors, namely an increasing number of students needing accommodations, limited time spent with each of my students due to the secondary setting schedule, and insufficient support and professional development for general education inclusion teachers.

A review of the literature suggested that the most effective method for achieving equity for all learners is through the inclusion of students with learning disabilities into general education classrooms, which represent the least restrictive environment as required by federal law (Vygotsky, 1978; Vygotsky, 1993; Rose & Meyer, 2006). However, a variety of barriers have continued to prevent effective inclusion of all learners, primary of which has been an overall resistance to structural change and the desegregation of learners (Mutua & Siders, 2010; Matthews, 2009; Gilmour, 2018; Smith, 2010; Owen & Gabel, 2010; Leroy & Lacey, 2010; Connor, 2010; Nusbaum, 2010). Additionally, historically problematic teacher perspectives toward the inclusion of students with learning disabilities were noted (Hawpe, 2013; Steffes, 2010; Scanlon & Baker, 2012). Furthermore, the research suggested that insufficient teacher preparation programs and limited continuing education exacerbated the issue of inclusion

(Washburn-Moses, 2008; Mitchell, 2019; Wilson et al., 2001; Rosenzweig, 2009). The literature review encompassed many approaches, but ultimately, universal design for learning (UDL) was demonstrated to be transformational for students with learning disabilities (Rose & Meyer, 2006).

Overview of Methods and Data Collection

Data were collected over a period of 10 weeks for this action research project. The first week of the study was a brief one week pre-intervention phase. Phase two, the intervention phase, lasted for eight weeks. Phase three, the post-intervention phase was the final week of the study. Unfortunately, the post-intervention week was disrupted by school closure due to the shelter-in-place order enacted within the county, and later the state, due to the Covid-19 national emergency. During the pre-intervention phase, the baseline student writing samples were collected and scored using the argument writing checklist (Appendix A). The students also completed their initial journal reflection (Appendix D). Once baseline data was gathered, the intervention phase began.

At the beginning of phase two, all resources and notes were pre-loaded online for students to preview and refer to throughout the unit. The timeline for the unit was extended from the usual five to six weeks into an eight-week writing timeline. This enabled a slower unit pace than originally used for this class. Students participated in two to three writers' workshop mini-lessons per week as they wrote their rough drafts of the argument writing assignment. With a longer timeline, I was able to break my lessons into smaller chunks which allowed me to speak more slowly and provide more scaffolding in general for all my students. During the intervention phase, students used graphic organizers to develop their thesis statements and process papers. Field notes were recorded at least twice a week during the intervention to capture impressions of

student engagement and writing progress. During the last week of the intervention, students completed a final journal reflection and began work on their project presentations. Regrettably, school closure prevented the presentations from happening live. Many students were able to complete their final projects and present online through the use of short recorded FlipGrid videos. Data collection during the intervention included the log of researcher field notes, the assessment of final drafts using the argument writing checklist, and the final student journal reflection. The project presentations were not assessed.

Demographics of the Participants

The 18 participants for this action research project were drawn from within my three sections of eighth-grade students during the 2019-2020 academic year. The study sample consisted of 18 students ranging in age from 11-14 years. Within the sample, 5 students identified as female and 13 as male. The racial and ethnic makeup of the student sample was 65% White or Caucasian, 17.5% Asian, 12% Latinx, and 5.5% Two or More Races. None of the students were designated as English Language Learners (ELL). The participant breakdown by category of support and gender is illustrated in Table 1.

Table 1

Demographic breakdown of participant population

Category	Male	Female
IEP	6	1
504	5	3
SST	2	1

Analysis of Student Journal Reflections

At the end of the pre-intervention phase one of the study, each student was asked to complete a one-page journal reflection form consisting of three parts: a Likert scale, a goals section, and a short constructed response (Appendix D). Additionally, at the beginning of the post-intervention phase three of the study, a second student journal reflection was also assigned and collected (Appendix E). The pre- and post-intervention student journal reflections were similar in structure, with some variations related to when they were completed during the study. The reflections were used to measure students' sense of their argument writing interests, skills, experiences, and confidence. Participants reported a numerical rating using a Likert-type 5-point scale on four statements. The reporting options ranged from *Very Much Like Me* (5 points) to *Not At All Like Me* (1 point). The scale also included additional options of *Somewhat Like Me* (4 points), *Neutral* (3 points), and *Not Much Like Me* (2 points). The four statements in the first student journal reflection were: *I have struggled with argument writing in the past* (Q1), *I find argument writing interesting or fun* (Q2), *This year's unit looks interesting/fun to me* (Q3), and *I am a confident argument writer* (Q4). As shown in Figure 1 below, the data reveal that student mean scores were close to neutral across all four questions.

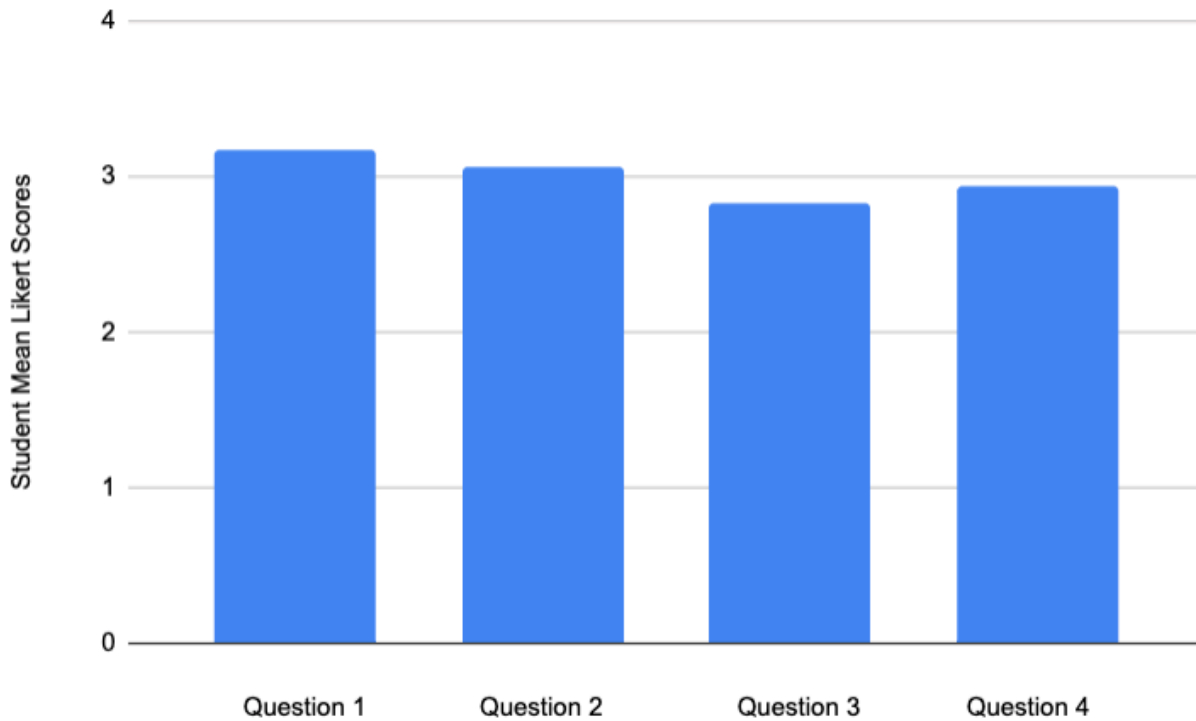


Figure 1. Pre-intervention student journal reflection #1 responses (N=18)

The four statements in the second student journal reflection data were not identical to those in the first reflection, so a comparison of the two data sets is not applicable in general. The four statements in the second student journal reflection were *I struggled with this argument writing unit* (Q1), *I found this writing unit interesting or fun* (Q2), *This year’s unit helped me grow my writing skills* (Q3), and *I am a more confident argument writer now* (Q4). The Likert scale data suggested that students experienced less struggle with this UDL argument unit than during argument writing units from previous grades, an approximate 16.5% reduction. While interesting but not surprising, the data suggest that my eighth-grade students did not seem to significantly gain interest in argument writing during this unit in contrast to previous years, with only a modest approximate 4% increase in interest. Question 3 about growth in writing skills was not similar to any of the statements in the first student reflection, but it did record the highest

scores of any of the eight statements, with a mean score of 3.94. Notably, the most significant statistical change from pre- to post-intervention data was regarding student confidence (Q4), with an increase of approximately 20% as shown in Figure 2 below.

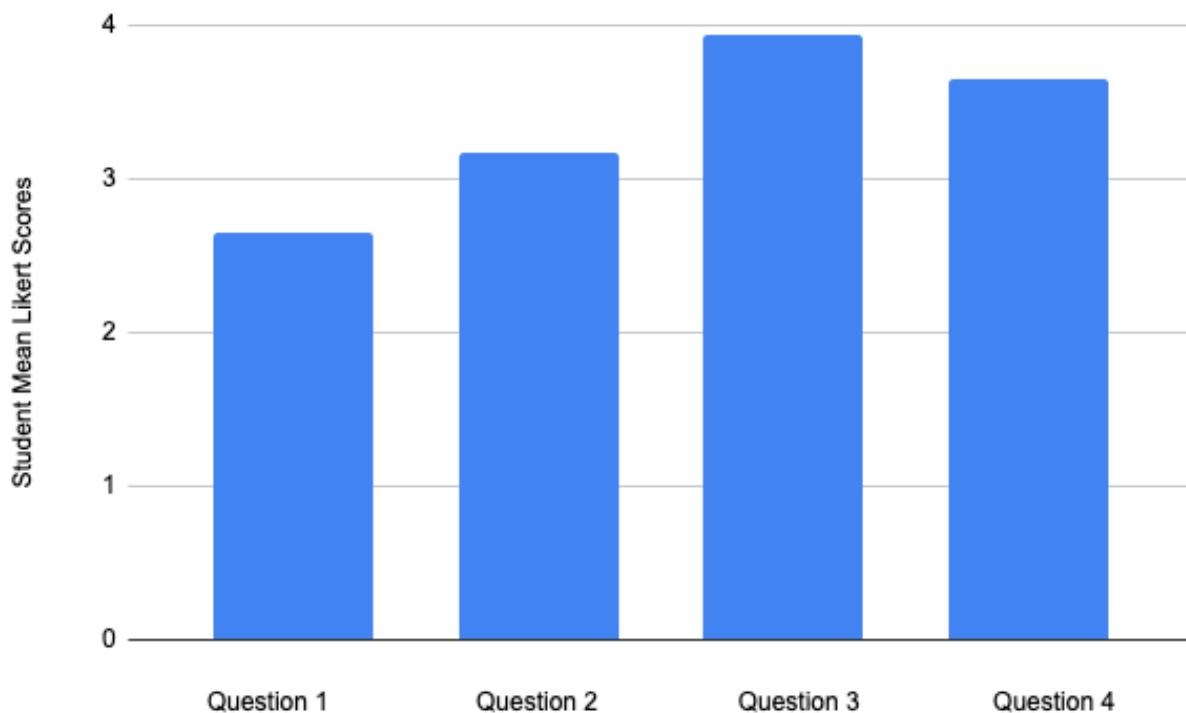


Figure 2. Post-intervention student journal reflection #2 responses (N=18).

Thus, these quantitative data support the premise that universal design for learning (UDL) in a secondary inclusion general education classroom helps students with learning disabilities to strengthen their writing skills and develop greater confidence as writers.

Additionally, the pre-intervention student journal reflection included an opportunity for students to select two independent writing goals from a menu of nine skills to focus on during the unit. The two most commonly selected goals were: *I want to learn to use a formal academic voice in my writing* and *I want to learn how to write strong topic sentences and concluding sentences*. This pre-intervention student feedback informed both my lesson planning and my conferring sessions with individual students during the intervention. However, based on the post-

intervention second journal reflection, it was interesting to note that the data showed the top three skills outcomes where students saw themselves grow as writers did not include either of the top two goals from the first reflection. Rather, the top three growth skills outcomes selected by students in the post-intervention reflection were: *I learned how to find and properly cite reliable sources, I learned how to use in-text citation and an MLA bibliography, and I learned how to paraphrase and quote sources to avoid plagiarism.*

The third section of the student journal reflections were the constructed response prompts. For the pre-intervention first student journal reflection, students were prompted to briefly explain why they chose the two selected goals for their writing during the unit. This provided insight into my students as writers and informed my lesson planning and conferring strategies during the intervention. Furthermore, the post-intervention reflection constructed response prompted students to choose one of the outcomes they circled on the second reflection and describe how the writing in this unit has prepared them for the rigors of first-year high school writing.

As my students reflected on their learning in this unit and connected their growth as writers to what will come next for them as high school freshmen, I was struck by how clearly my students described the value they placed on their own writing growth. One student wrote, “I feel more confident in my writing now that I have learned how to use a formal academic voice in my writing.” Another student shared the following in a reflection: “The trouble for me has almost always been citation. I mainly use websites to do it and this has prepared me for next year.” A third student stated, “Next year, there would be a lot of trouble if I didn’t cite my sources correctly, so I’m glad I now know how to do that.” A final student statement spoke for many of the participants when he summarized by writing, “Learning how to write an effective thesis,

counterargument, and rebuttal will be very helpful for high school. Teachers will expect me to know this stuff.” An overall theme emerged of students’ appreciation for this unit and how better prepared they felt for the next step as writers in high school. In the following section, the participant writing scores are analyzed to provide quantitative data.

Analysis of Student Writing Scores

Early in phase one of the study, a pre-intervention baseline writing sample was collected from all students. The writing prompt for the baseline sample is provided in Appendix B. At the conclusion of the intervention, student essay final drafts were collected. Both the baseline samples and the final drafts were scored using the same argument writing checklist (Appendix A). When the baseline writing samples were scored, all 18 of my student participants were writing below grade-level. However, upon the conclusion of the intervention, the data indicated that the students’ final drafts showed notable improvement, with 72% of the participants writing at grade-level. Figure 3 below illustrates the breakdown of student writing improvement over the course of the intervention.

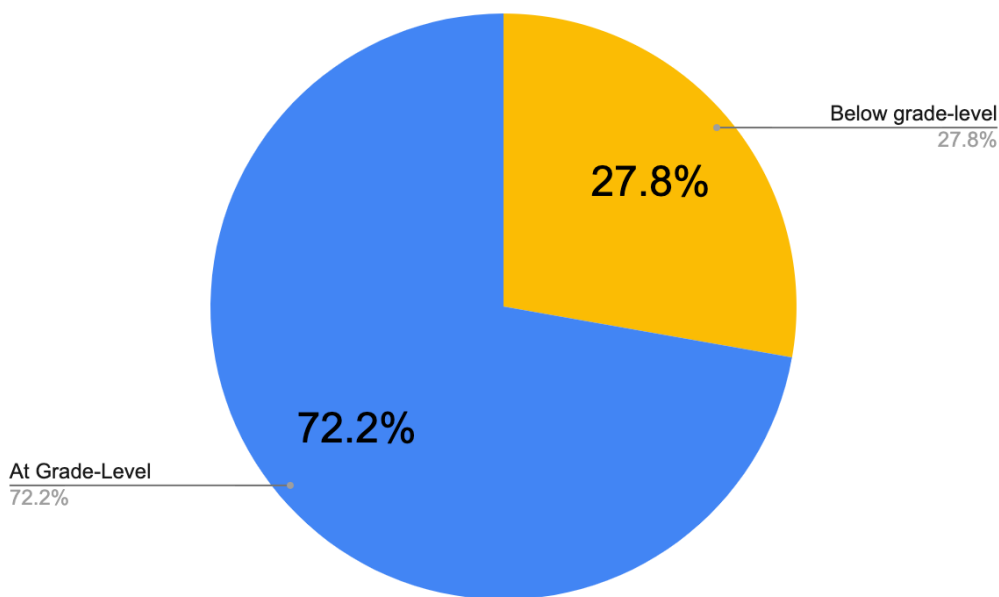


Figure 3. Post-intervention student writing scores (N=18)

Although all participants showed improvement in their writing over the course of the intervention, individual student growth varied, as illustrated in Figure 4 below. In this figure, all 18 participants are displayed individually. The data are displayed using a stacked column chart in which the darker shade indicates the baseline score and the lighter shade indicates the individual student's final draft score and therefore also the degree of improvement. For example, student 8 showed a greater amount of overall improvement when compared to student 17. The district scoring system was based upon a scale of 1-3+. A score of 3- or higher indicated grade-level writing.

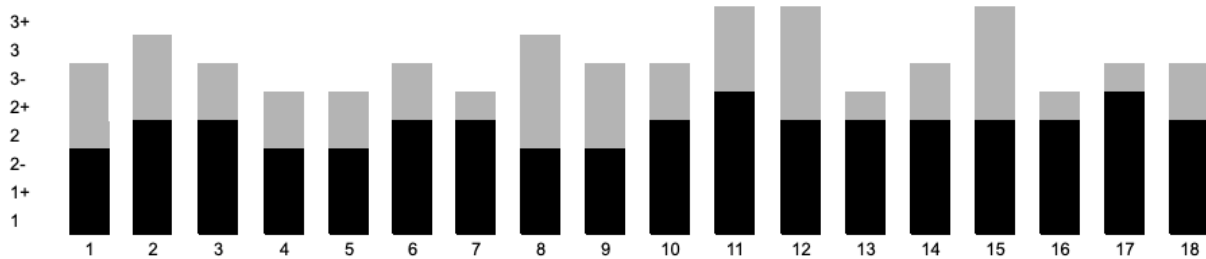


Figure 4. Pre- and post-intervention student writing scores (N=18)

This quantitative data suggests that the four universal design for learning strategies implemented during the intervention supported overall writing growth. In the following section, researcher field notes compiled during this study are analyzed to provide qualitative data.

Analysis of Teacher Field Notes

During all three phases of the study, teacher field notes were entered in a Google Document file (Appendix C) after writers' workshop lessons and activities which were conducted two or three times a week over the length of the intervention. Each day's notes were broken down into three columns, one column per section of students. Researcher notes included workshop topic or activity, attendance, student engagement, student feedback, and any notable or

unanticipated occurrences. Notes were recorded on 16 different dates with two to three entries per date. If the date was a Monday or Friday, there were typically entries for all three sections of students due to a traditional schedule. However, for Tuesdays, Wednesday, and Thursdays, I only saw two sections of my students per day due to a modified block schedule with longer periods. The entries were coded in order to use qualitative data to investigate the research question, with several themes emerging from the coding process. Notable themes included: participant engagement with lessons and activities, participant writing stamina, feedback related to participant goals and growth, surprises and other unexpected developments, and participant attendance.

One of the more remarkable surprises happened to be in the area of attendance. Overall, the participants in this study achieved a surprising 98% overall attendance rate during the three phases of this research. Absenteeism was limited to four students in particular, but not enough to significantly reduce the overall mean attendance. An additional surprise was related to occasional power outages on campus which impacted student access to Google documents. The coding process did not result in significant notation regarding student attendance or power outages.

Table 2 illustrates the three central themes which did emerge in the coding process: 1) *engagement that strengthened participants' writing stamina and confidence*, 2) *engagement that strengthened student progress toward writing goals*, and 3) *quotes that represent the value students placed upon their growth as writers during the intervention*. The examples presented in the table highlight how the intervention strategy, universal design for learning, enabled stronger student engagement, progress toward goals, students' sense of confidence in their writing, and

the value they placed upon their new learning (pseudonyms are used to protect the participants' anonymity).

Table 2*Summary of Common Themes in the Researcher's Field Notes*

Themes	Example 1	Example 2	Example 3
1. Engagement that strengthened student writing stamina and confidence	“After a writer’s workshop mini-lesson about introductory paragraphs, I gave each student a graphic organizer for structuring their first paragraph. They worked in teams of two, completely engaged, for a full 20 minutes, making surprising amounts of progress for this early stage of their drafts.” 1/21/20	“After a writer’s workshop mini-lesson about formal academic voice, I overheard a student remark to her writing partner, ‘I feel more confident in my writing now that I have learned how to use a formal academic voice in my writing.’” 1/22/20 Katya	“After a mini-lesson on thesis statements using a creative ‘thesis statement machine’, I saw several pairs of writing partners smiling and giving partner feedback by using the machine’s recipe for formulating a strong thesis. As I circulated, writing partners Inga and Diego asked if we could keep going a little longer.” 1/23/20
2. Engagement that strengthened student progress toward writing goals	“After a mini-lesson on ethos, pathos, logos, I reviewed the concepts using an online Kahoot! game with the class. They loved it! One section of students went from zero prior knowledge on the concept to making sense of it.” 1/24/20	“During a conferring session with writing partners Micah and Maria, both students agreed this unit was a wake-up call, motivating them to increase their effort and improve their writing skills for English 9 next year.” 2/10/20	“Although attendance has become an issue for three participants, each has still shown strong engagement and growth when they are in class. This surprises me because I assumed they would be less engaged when compared to others.” 2/27/20
3. Quotes that represent the value students placed upon their growth as writers	“Learning how to write a strong thesis statement helped me prepare for high school because the thesis statement is the core of your essay and without it your essay’s just an empty shell with no structure or point.” 2/24/20 Junko	Student reflection statement: “The trouble for me has almost always been citation. I’ve mainly used websites to do it, but this has prepared me for next year.” 2/25/20 Harnoor	“I can’t even begin to describe how much that means to me!!! You being my teacher has definitely helped. So thank you so much for your patience and understanding.” 2/28/20 email from Cosette

The examples provided above from the researcher's field notes, illustrate the variety of ways the participants expressed their progress toward their writing confidence and learning goals throughout this action research study.

Summary

The purpose of the action research project was to explore how the implementation of universal design for learning strategies would improve my eighth-grade students' progress toward learning goals. An intervention consisting of four UDL strategies was implemented in three phases over 10 weeks. Three data gathering measures were utilized to study the effect of the intervention on the participants' growth in writing goals during the argument writing unit: student journal reflections, student writing scores, and researcher field notes.

Quantitative data were collected using a Likert scale in the student reflections as well as through scoring of baseline and final draft student writing. Qualitative data were collected by means of researcher field notes. Upon synthesizing the data collected through these three sources, I was able to determine that the suburban eighth-grade study participants demonstrated a greater sense of confidence in their writing, progress toward learning goals, and all showed improvement in their writing scores.

In the next chapter, I discuss the conclusions of this action research study. Results are compared and contrasted to studies discussed in the literature review found in Chapter II. Chapter V explores the implications of this action research study and concludes with how plans for my future work have been informed both as a result of my implementation of this action research project and by my study of transformative teacher leadership.

Chapter V

Conclusions

Despite federal and state laws enacted to ensure all students have equitable access to a high quality public education, students with learning disabilities often do not receive the support, accommodations, or modifications to which they are legally entitled (Hawpe, 2013; McLeskey et al., 2011; Smith, 2010). While reasons vary, the lasting impacts upon this vulnerable student population are clear and unacceptable, especially at the secondary level. It is vital that educators adapt their instructional practices to meet the needs of this growing population of students with identified learning disabilities. As stated by Rose and Meyer (2006) in their universal design for learning (UDL) theory, educators must equitably support all learners through the adoption of research-based inclusive lesson design.

In the suburban eighth-grade classroom where this study took place, I frequently struggled with differentiating in a secondary setting. Differentiation in an elementary setting looks very different from that of the secondary setting. The structure of the secondary setting, with significantly higher numbers of students combined with considerably less daily face time, resulted in frustration as I tried to provide consistent accommodations and communication. This challenge was becoming even more acute due to the upward trend of students with learning disabilities in need of accommodations and modifications in my classroom. Yet I received minimal additional support or inclusion training necessary to successfully differentiate and meet the needs of my increasing caseload. Every management approach I tried failed spectacularly, leaving me doubting my effectiveness as an educator. More importantly, I knew my students with learning disabilities deserved better. They were legally entitled to a level of equity that I

was unable to consistently provide. Something had to change. This was the dilemma which led me to begin this action research project.

Universal design for learning (UDL) was chosen as the intervention strategy for my action research because studies have demonstrated that UDL improves the inclusion classroom in several ways. First, and most notably, student outcomes improve for all students but especially among those with learning disabilities (Smith & Lowrey, 2017). Additionally, UDL creates equity among learners and reduces segregation of students (Villa et al., 2005; Meyer & Rose, 2002). Further, UDL has been shown to improve the attitudes and perspectives of educators toward students with learning disabilities (Villa et al., 2005, p. 47). The research, although limited, aligned with my belief that inclusion and equity cannot be separated. Therefore, the action research question explored was: *How will the implementation of universal design for learning strategies improve my eighth-grade students' progress toward learning goals?*

Chapter IV presented the findings of the triangulated data collected during my action research project. These data indicate that the implementation of universal design for learning in my argument writing unit led to improvement in all of the participants' progress toward writing goals, including specific writing skills and a sense of confidence as writers. This chapter is organized into five sections as follows: summary of findings, interpretation of findings, limitations, summary, and plan for future action. The first section, summary of findings, discusses the data collected from the three measures used: student writing scores, researcher field notes, and student journal reflections. The following section provides interpretation of the findings. The third section explains potential limitations to this action research study while the fourth section gives a concise summary of the entire action research project. The fifth and final section considers the potential actions I will pursue in response to this action research project.

Summary of Findings

This research study utilized a mixed-methods approach while closely examining the effects of universal design for learning (UDL) upon my eighth-grade suburban middle school study participants. A combination of three instruments were used to measure the students' progress toward their learning goals within my argument writing unit. The instruments used were student writing scores derived through a department scoring checklist (Appendix A), student journal reflections (Appendices D & E), and teacher field notes (Appendix C). My study participants ($N=18$) consisted of my students with IEP, 504, or SST plans.

Data collected during the one week pre-intervention phase included baseline writing samples and an initial student journal reflection with a Likert scale assessment. Phase two consisted of an eight-week intervention using four UDL strategies intended to support student engagement and achievement. During the phase two intervention, I took researcher field notes two or three times per week to record my observations and reflections in an online Google document. Phase three post-intervention data were gathered using final draft writing and final student journal reflection.

The sheltering-in-place order of 2020 limited my ability to assess student presentations which were scheduled to begin on what became the first day of the school closure. I attempted to convert participant presentations to an online video format. However, not all of my participants were able to complete their online videos as the school and staff scrambled to convert instruction during the first two weeks of the shutdown.

Student journal reflections. An evaluation of the data collected through two student journal reflections reflected an increase in participant confidence and a reduction in the amount of struggle students experienced when compared to argument writing in prior grades. The student

journal reflections (Appendices D & E) were broken into three identical sections: a Likert scale exploring student attitudes toward argument writing, a writing goals and outcomes selection, and a short constructed response explaining the goals or outcomes they chose.

The mean Likert-type scores for the phase one pre-intervention student journal reflection showed a close-to-neutral mean score across all four questions (Figure 1). The reporting options ranged from *Very Much Like Me* (5 points) to *Not At All Like Me* (1 point). The scale also included additional options of *Somewhat Like Me* (4 points), *Neutral* (3 points), and *Not Much Like Me* (2 points). The four statements in the first student journal reflection were *I have struggled with argument writing in the past* (Q1), *I find argument writing interesting or fun* (Q2), *This year's unit looks interesting/fun to me* (Q3), and *I am a confident argument writer* (Q4).

The four statements in the second student journal reflection data were not identical to those in the first reflection: therefore, a comparison of the two data sets isn't applicable. The four statements in the second student journal reflection were *I struggled with this argument writing unit* (Q1), *I found this writing unit interesting or fun* (Q2), *This year's unit helped me grow my writing skills* (Q3), and *I am a more confident argument writer now* (Q4). The two most notable results from the collected Likert data were that participant attitudes toward this UDL unit were more positive than students held toward argument writing units in prior grades. Empirically, this was self-reported as a 16.5% reduction in struggle from previous argument writing experiences. Secondly, the participants' confidence with argument writing increased by 20% over the course of the intervention (Figure 2). Confidence and writing stamina are central considerations as I prepare my students for high school level writing. These data suggest that a greater amount of overall engagement through UDL has a direct impact upon both their learning goals and my instructional goals

Student writing scores. An analysis of the data collected indicated that writing scores improved for all participants after the intervention. A comparison of pre-intervention baseline writing and post-intervention final draft writing revealed that each of the participants demonstrated growth in their writing skills and overall effectiveness as a writer (Figure 2). Study participants improved their mean writing score by approximately 30% ($M=2.46$ vs. 3.21). Prior to the intervention, all of the participants were writing below grade level based on their baseline scores. However, after the intervention, 13 of the 18 participants (72%) were writing at or above grade level.

Notably, of the 28% of participants ($n=5$) who showed improvement but not enough to reach grade level, two ($n=2$) were students with moderate to severe learning disabilities with modified grades as stipulated by their IEP plans. Both of these participants had a 22% approximate improvement in their writing scores. This improvement was not unexpected, but it was surprisingly consistent for both students. While all of the participants were pleased with their improvement, the two students with modified grades were not surprised and indicated that they attributed their success to hard work and positive feedback.

Researcher field notes. Three significant themes emerged from the data collected through researcher field notes. These themes were: *engagement that strengthened participants' writing stamina and confidence*, *engagement that strengthened student progress toward writing goals*, and *quotes that represent the value students placed upon their growth as writers during the intervention* (Table 2).

Engagement that strengthened participants' writing stamina and confidence was the dominant theme noted throughout the field notes, possibly because it was remarkable and distinctly noticeable. This unit began in January, shortly after the winter holiday break. This

return from a long break is a particularly difficult point in the academic calendar to create engagement and writing stamina with my eighth-grade students. On 17 occasions during the three phases of this study, I captured anecdotal evidence in my classroom wherein participants were demonstrating stamina while quietly and busily researching their topic and writing their drafts. I also recorded a similar number of moments where writing partners were engaged in focused discussions and providing feedback to one another. As participants further researched their topics for supporting evidence and began revising their drafts, their confidence increased. I noted 13 references in the field notes where I observed and overheard writing partners playing devil's advocate for their partner as students created counterarguments and rebuttals about their individual topics together with their writing partner. This high level of engagement was also noted as partners worked together to strengthen and revise their thesis statements. Additionally, I recorded my impressions after conferring with partners or individual students. These one-on-one or small group conferring sessions focused on the UDL graphic organizer strategy and progress toward individual writing goals which is explored in the following paragraph. The process of conferring included checking in with students about their individual writing goals as well as focusing their thoughts through the use of graphic organizer tools. Conferring often contributed to the participants' overall sense of confidence as writers.

Engagement that strengthened student progress toward independent writing goals was a consistent and equally identifiable theme throughout my researcher field notes. My notes included 34 observations related to student writing goals, as well as many additional handwritten conferring notes which I collected in a binder during conferring with my students. Student writing goals were generated in two ways. Students were asked to identify two writing goals in their first pre-intervention journal reflection. Secondly, students organically grew their writing

goals during the intervention based on their new learning and feedback from their writing partner and teacher. Conversations around writing goals were positive and intentionally used growth mindset language. The writing goal menu was presented to participants during the phase one pre-intervention to scaffold specific and accessible targets. Engagement with writing goals was an ongoing theme in my field notes primarily because it was also an ongoing topic in my writers' workshop mini-lessons. Yet at the same time, I wanted individual student writing goals to remain private in order to avoid any negative perceptions or inhibit confidence. Therefore, during mini-lessons, I referred to which goals from the menu would be covered in that lesson in order to form a stronger connection for students between their learning and their goals.

Teacher field notes also recorded absences and the occasional power outage which prevented access to our online Google suite. Absenteeism played a minor role in the first two themes as noted above. Two of the study participants had extended absences from school during the intervention, one for a full week and the other for two weeks. Another participant transitioned to a home and hospital independent study at the beginning of the phase two intervention. However, each one of these three students (16%) still completed their draft and showed overall improvement in their writing scores.

The last predominant theme which emerged from the researcher field notes were captured statements representing the value students were placing upon their growth as writers during the intervention. This theme was somewhat unexpected, and went generally unnoticed until I began the process of coding the researcher field notes. Approximately 20% of the recorded sentiments were connected to students acknowledging the valued they placed upon their growth as writers (Table 2). Typically, eighth-grade students enter in the fall feeling overly confident about their ability as writers. After the fall writing activities, the realization usually seeps in that they are not

as prepared for high school level writing as they thought, and a paralyzing panic can set in. With the timing of this intervention at the beginning of the second semester, it appeared that students were appreciative of the opportunity to see their progress as writers. Researcher field notes related to students placing value on their growth as writers outnumbered any perceived negativity or doubt by a three to one ratio.

This study, featuring mixed-methods data collection, produced compelling data that clearly demonstrated how eighth-grade suburban students with learning disabilities improved their writing and attainment of learning goals through the implementation of UDL strategies. These data align with conclusions found within the reviewed literature. Specifically, studies conducted by Smith and Lowrey (2017), Villa, Thousand, Nevin, and Liston (2005), and Meyer and Rose (2002) showed that students with disabilities can realize improved access to curriculum and attain positive learner outcomes when provided with strategies designed specifically with their learning needs in mind. It's important to note that studies also confirmed that when educators provide students with equitable access to content through the use of UDL strategies, the segregation of learners based upon perceived abilities is reduced (Rose & Meyer, 2006; Dolmage, 2015). The data in this study additionally confirmed these findings.

Interpretation of Findings

Based on a careful analysis utilizing both quantitative and qualitative data collected from the three measures used during this action research project, I was able to draw the following conclusion: the introduction of universal design for learning strategies into my argument writing unit helped my eighth-grade students improve their progress toward learning goals. The data collected during this study were consistent for all participants. Results from the student journal reflections, student writing scores, and researcher field notes substantiate this conclusion.

The data from the participant writing scores further corroborated this conclusion. I did not expect 100% of my participants to show progress toward their learning goals. I had participants in this study who did not believe in themselves as writers, or who even suggested that they hate to write or are basically not good at it. Most striking is that even these students were engaged and showed progress. I expected a subset to resist the intervention strategies entirely either because of self-doubt or prior bad experiences in earlier grade levels, but I did not observe any participants with a negative attitude or refusal to participate in the strategies. I also thought it unlikely that my two moderate-to-severe students would show progress toward their learning goals, yet they did as well. The graphic organizer tools for all students created an outline or formula which made completion of each paragraph clearly guided and easy to follow (Appendix E). I believe this strategy was the most effective for participants who might have expressed resistance or for participants who needed significantly more scaffolding and support.

During the previous narrative writing unit in the fall, my students wrote two shorter pieces, a fictional spooky story and a nonfiction memoir college application essay. UDL strategies were not implemented during the fall narrative unit. At the start of the narrative unit, baseline writing indicated that none of the participants were writing narratives at grade level. When the summative narrative assessment was scored, 8 of the 18 participants (44%) were writing at grade level expectations. In contrast, after the implementation of UDL strategies in the argument writing unit which was the subject of my action research intervention, my research indicated that 13 of 18 participants (72%) had improved to writing at grade level expectations. A comparison of mean growth showed that during the earlier narrative unit, participant mean growth was +.36 (M=2.35 vs. 3.71). However, the mean growth during the argument writing UDL intervention was +.75 (M=2.46 vs. 3.21). This represents a doubling of participant mean

growth which may be attributed to the UDL intervention. Further research is recommended to examine the impact of UDL strategies in other settings, genres, and demographics.

The strategies introduced in this intervention can be used by my students for almost any form of writing for any content area. I would not hesitate to ask all students, even those who are advanced writers, to use these UDL strategies. Upon hearing the student feedback related to the value they placed on their new learning, I suggested that they might want to make a copy of the graphic organizer tools in their personal digital files for later reference during ninth grade.

By the end of the intervention, the UDL strategies selected for this intervention had instilled a positive change in many of the participants' confidence levels. For some students, this newfound confidence stood out in their journal reflection responses; and for others, it manifested itself during our conferring conversations. Either way, it was palpable and rewarding to hear. Ultimately, if this intervention challenged the notion held by any student that they are not a good writer, then I believe I have given them an opportunity to re-evaluate that fixed mindset in light of their individual progress.

Student perceptions of their own needs and abilities are central to not only their self-worth but also to their potential as learners as noted in research by Baker and Scanlon (2016) as well as by Katz and Sokal (2016). Vygotsky (1993) proposed inclusion as a means to both acknowledge the real abilities of children with disabilities as well as to provide challenges for them to reach their potential. The UDL framework as theorized by Rose and Meyer (2006) encourages educators to implement any number of UDL strategies into the classroom, creating a more equitable and differentiated environment in which learners with disabilities can achieve academic growth and increased confidence.

Reflection on Limitations

This action research study spanned a 10-week period, making the limitation of time a constraint since my students' writing skills naturally develop through the entire academic year. A longitudinal study tracking the impact of UDL upon student progress toward learning goals over a span of several years is recommended as it would provide more reliable conclusions. A further limitation related to the time frame was the 2020 emergency school closure which impacted the 10th week, the post-intervention third phase of the study. I was unable to truncate phase three and expect all participants to post an online version of their final outcome to a virtual audience due to constraints placed upon me by my district.

Additionally, the modest sample size of 18 participants was also a limitation. Due to the small size of the sample, this study's results cannot be reliably generalized for other populations or grade levels.

Moreover, the use of a growth data comparison between the intervention writing unit and the earlier fall writing unit created another limitation. First, the genres of the two units differed which may have impacted student scores. The earlier unit during fall was a narrative writing unit while this study's intervention was implemented during an argument writing unit. Second, the checklist used to score student narrative writing varied from the argument writing checklist. Additionally, mean growth in student writing scores for each unit may have been impacted by student preferences between the topics they chose for their writing pieces.

Furthermore, I filled the roles of both teacher and researcher, which could have influenced student engagement and responses during the UDL intervention. Lastly, the participants' geographic location and unique demographics are limitations which may result in

data and conclusions that do not translate universally to other schools of varying locations and demographic populations.

Summary

Students with learning disabilities in a secondary general education classroom setting do not consistently receive the accommodations they require to access the curriculum (Witmer et al., 2018). Research has shown that many secondary general education teachers are not adequately trained or prepared for the growing numbers of students with learning disabilities entering their classrooms (Mitchell, 2019, Hawpe, 2013, Steffes, 2010). Furthermore, students of color are two to three times more likely to be disproportionately identified as “mentally retarded” (Mutua & Sider, 2010). With these facts in mind, I wanted to address these issues using a systematic, research-based approach to explore ways that I could better serve my eighth-grade students with learning disabilities and support them toward our learning goals.

Research indicated that universal design for learning (UDL) is an effective strategy allowing all learners to successfully access the curriculum, grow academically, and strengthen their confidence (Smith & Lowrey, 2017, Villa et al., 2005, Rose & Meyer, 2006). The UDL framework showed promise regarding providing classroom equity without the barriers of cost or structure. Through this research project, I wanted to explore the effectiveness of UDL in a middle school setting because I was unable to locate research literature related to middle school settings.

The theoretical rationale of this research study was based on Lev Vygotsky’s disability theory, as well as David Rose and Anne Meyer’s theory of universal design for learning. The intersection of these theorists can be found in the notion that students with learning disabilities can reach their potential if they are enabled to access the curriculum equitably. After reviewing

the related literature, I hoped that UDL would be a transformative intervention for my suburban eighth-grade students with learning disabilities. I believed that with the right intervention, my students would be able to confidently develop as writers and improve toward or meet their learning goals.

This action research study was conducted over a 10-week period. Participants were involved in an argument writing unit in which they were asked to select and write about a problem and solution of their own interest. Participants worked with a writing partner and participated in this study, despite the early conclusion in phase three due to the pandemic school closures. After a detailed analysis of the triangulated research data sources, I concluded that eighth-grade students with learning disabilities improved their argument writing scores, confidence as writers, and found value in their new learning. Overall, these factors demonstrated that UDL contributed to the participants' development as writers. Due to the limitations of this study, more research involving secondary students should be conducted to further explore how UDL strategies affect student growth toward learning goals.

Plan for Future Action

Clearly, the findings from this action research project demonstrated that using the UDL framework and strategies in an eighth-grade writing unit supported student growth toward learning goals. I intend to request the opportunity to present my research and findings to my colleagues once schools reopen and in-person instruction resumes. I will also invite colleagues to observe my class as they participate in our professional learning community's instructional rounds. I also plan to invite district administrators such as the Director of Curriculum and Instruction as well as the Director of Students Services (special education) to observe.

Even though equity has always been at the center of my classroom environment, I must focus on doing even more for learners in my campus, district, and community. I hold passionate beliefs about creating safe educational spaces for all learners, regardless of race, gender, disability, religion, and family/socioeconomic status. With this focus, I plan to reach out to colleagues and administrators about the possibility of hosting a positive strategy group or a book club with the explicit purpose of presenting UDL to a wider number of educators at my site or in the district.

I am hopeful that my efforts to introduce UDL to my colleagues will result in positive changes for students and staff alike. I expect one result will be improved communication and collaboration between general education and special education teachers. Additionally, I anticipate improved partnership between teachers and parents or guardians due to the prioritization of the needs of all learners. Lastly, my efforts will also contribute to the scarcity of research focused on secondary students with learning disabilities and UDL. There are many strategies to choose from within UDL. I intend to continue to introduce new UDL strategies into my units and will continue to informally research the effects upon my learners. As each new group of students enters my classroom every year, I plan to select UDL strategies to meet their individual needs.

The participants in this study encountered a new, engaging, and structured approach to argument writing. They benefitted from the ability to see all of the resources and scheduling of the unit from the introductory phase. The graphic organizers for each paragraph offered scaffolding and goal setting strategies which encouraged stamina and expanded feedback opportunities. The pace of both the unit and the individual mini-lessons allowed students to focus on individual stages of their writing without the usual feelings of being rushed or not having

space to do their best work. Student reflections and field note observations revealed that the participants found considerable value in the UDL strategies used in the intervention. The participants in this study are about to enter high school under some of the most unusual conditions schools have ever faced. I am grateful to have had the opportunity to watch and document their amazing overall growth as writers. While the future feels a little less certain to them now, their sense of confidence as writers will be foundational as they move into the unfamiliar landscape ahead.

References

- Baker, D., & Scanlon, D. (2016). Student perspectives on academic accommodations. *Exceptionality*, 24(2), 93-108.
- Beech, M. (1999). Accommodations: Assisting students with disabilities. A Guide for Educators. Retrieved [8/24/2019] from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED444288&site=ehost-live&scope=site>
- California Teachers Commission (2019). Local solutions to the shortage of special education teachers: Announcement of grant awards. Retrieved from <https://www.ctc.ca.gov/educator-prep/grant-funded-programs/local-solutions-advisory>
- Calkins, L. et al (2014). Units of Study in Argument, Information, and Narrative Writing, Grade 8. Portsmouth, NH: FirstHand.
- Carpenter, L. B., & Dyal, A. (2007). Secondary inclusion: Strategies for implementing the consultative teacher model. *Education*, 127(3), 344-350.
- CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>
- Connor, D. (2010). Adding urban complexities into the mix: Continued resistance to the inclusion of students with cognitive impairments (or New York, New York: So bad they segregated it twice). In P. Smith (Ed.), *Whatever happened to inclusion?* (pp. 157-187). New York, NY: Peter Lang Publishing Inc.
- Council for Exceptional Children (2019). A primer on the IDEA 2004 regulations. Retrieved from <https://www.cec.sped.org/Policy-and-Advocacy/Current-Sped-Gifted-Issues/Individuals-with-Disabilities-Education-Act/A-Primer-on-the-IDEA-2004-RegulationsIDEA>
- Dolmage, J. (2015). Universal design: Places to start, *Disability Studies Quarterly*, 35(2). <https://dsq-sds.org/article/view/4632/3946>
- Gilmour, A. F. (2018). Has inclusion gone too far? *EducationNext*, 18(4). <https://go-gale-com.stmarys-ca.idm.oclc.org/ps/i.do?v=2.1&it=r&sw=w&id=GALE%7CA556890651&prodId=AONE&sid=googleScholarFullText&userGroupName=mora54187&u=mora54187>
- Grossen, B. J. (2002). The BIG accommodation model: The direct instruction model for secondary schools. *Journal of Education for Students Placed At Risk*, 7(2), 241-263, DOI: 10.1207/S15327671ESPR0702_7

- Hawpe, J. C. (2013). *Secondary teachers' attitudes toward and willingness to provide accommodations and modifications for students with disabilities* (doctoral dissertation). Baker University, Baldwin City, Kansas.
- Howard, T. C. (2010). *Why race and culture matter in schools: Closing the achievement gap in America's classrooms*. New York, NY: Teachers College Press.
- Hutchison, C. B. (2018). Re-thinking disproportionality in special education as a self-fulfilling prophesy. *Insights in Learning Disabilities, 15*(2), 113-116.
- Katz, J. & Sokal, L. (2016). Universal design for learning as a bridge to inclusion: A qualitative report of student voices. *International Journal of Whole Schooling, 12*(2), 36-63.
- Kemp, S. E. (2006). Dropout policies and trends for students with and without disabilities. *Adolescence, Summer, 41*(162), 235-250.
- Kotik-Friedgut, B., & Friedgut, T. H. (2008). A man of his country and his time: Jewish influences on Lev Semionovich Vygotsky's world view. *History of Psychology, 11*(1), 15-39.
- Legislative Analyst's Office (2013). Overview of special education in California. Retrieved from <https://lao.ca.gov/reports/2013/edu/special-ed-primer/special-ed-primer-010313.aspx>
- Leroy, B. & Lacey, K. (2010). The inclusion of students with intellectual disabilities in Michigan. In P. Smith (Ed.), *Whatever happened to inclusion?* (pp. 101-116). New York, NY: Peter Lang Publishing Inc.
- Matthews, N. (2009). Teaching the "invisible" disabled students in the classroom: Disclosure, inclusion and the social model of disability. *Teaching in higher education, 14*(3), 229–239. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ858138&site=ehost-live&scope=site>
- McLeskey, J. , Landers, E. , Hoppey, D. & Williamson, P. (2011). Learning disabilities and the LRE mandate: An examination of national and state trends. *Learning Disabilities Research & Practice, 26*: 60-66. doi:10.1111/j.1540-5826.2011.00326.x
- Meyer, A., & Rose, D. (2002). Universal design for individual differences. *Educational Leadership, 58*(3), 39-43.
- Mitchell, C. (2019). Most classroom teachers feel unprepared to teach students with disabilities. *Education week - On special education*. Retrieved from http://blogs.edweek.org/edweek/speced/2019/05/teachers_feel_unprepared_to_teach_students_with_disabilities.html?cmp=SOC-SHR-FB

- Morin, A. (2019). Understanding universal design for learning. *Understood: For learning and attention issues*. Retrieved from <https://www.understood.org/en/school-learning/for-educators/universal-design-for-learning/understanding-universal-design-for-learning>
- Mueller, T. G., Singer, G. H. S., & Draper, L. M. (2008). Reducing parental dissatisfaction with special education in two school districts: Implementing conflict prevention and alternative dispute resolution. *Journal of Educational & Psychological Consultation*, 18(3), 191-233.
- Mutua, K. & Siders, J. (2010). "What is this inclusion thing? Who dumped these kids on me? How am I supposed to do this?": Tracing the contours of inclusion in Alabama. In P. Smith (Ed.), *Whatever happened to inclusion?* (pp. 132-156). New York, NY: Peter Lang Publishing Inc.
- National Center for Education Statistics (NCES). (2019). Children and youth with disabilities. Retrieved from https://nces.ed.gov/programs/coe/indicator_cgg.asp
- National Center for Education Statistics (NCES). (2019). Schools and staffing survey SASS. Retrieved [8/24/19] from https://nces.ed.gov/surveys/sass/tables/sass0708_2009324_t1s_08.asp
- Nusbaum, E. A. (2010). Fighting professional opinions: Stories of segregation by three California families. In P. Smith (Ed.), *Whatever happened to inclusion?* (pp. 117-131). New York, NY: Peter Lang Publishing Inc.
- Owen, V. & Gabel, S. (2010). Lack of vision? Lack of respect? Exclusion in Illinois. In P. Smith (Ed.), *Whatever happened to inclusion?* (pp. 86-100). New York, NY: Peter Lang Publishing Inc.
- Rodina, K. (2006). Vygotsky's social constructionist view on disability: A methodology for inclusive education. In Lassen, L. (Ed.), *Enabling Lifelong Learning in Education, Training and Development: European Learning Styles Information Network (ELSIN)*, University of Oslo: Oslo, CD/ISDN 82-8075-020-7
- Rose, D. H. & Meyer, A. (2006). *A practical reader in Universal Design for Learning*. Cambridge, MA: Harvard Education Press.
- Rosenzweig, K. (2009). Are today's general education teachers prepared to meet the needs of their inclusive students? *NERA Conference Proceedings 2009*. 10. https://opencommons.uconn.edu/nera_2009/10
- Samuels, C. (2015). Graduation Rates for Students with Disabilities on the Rise. *Education Week*, Retrieved [8/25/2019] from http://blogs.edweek.org/edweek/speced/2015/03/graduation_rates_disabilities.html?cmp=SOC-SHR-FB

- Scanlon, D., & Baker, D. (2012). An accommodations model for the secondary inclusive classroom. *Learning Disability Quarterly*, 35(4), 212–224.
- Smagorinsky, P. (2012). Vygotsky, “Defectology,” and the inclusion of people of difference in the broader cultural stream. *Journal of Language and Literacy Education* [Online], 8(1), 1-25. Available at <http://jolle.coe.uga.edu/wp-content/uploads/2012/05/Vygotsky-and-Defectology.pdf>
- Smith, P. (2010). *Whatever happened to inclusion? The place of students with intellectual disabilities in education*. New York, NY: Peter Lang Publishing Inc.
- Smith, S. J. & Lowrey, K. A. (2017). Applying the Universal Design for Learning framework for individuals with intellectual disability: The future must be now. *Intellectual & Developmental Disabilities*, 55(1) 48-51.
- Steffes, L. A. (2010). *General education teachers’ perceptions of accommodations for students with learning disabilities in inclusive secondary classrooms* (doctoral dissertation). Retrieved from ProQuest LLC.
<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED522703&site=ehost-live&scope=site>
- The difference between accommodations and modifications. Understood, 2019. Retrieved from <https://www.understood.org/en/learning-thinking-differences/treatments-approaches/educational-strategies/the-difference-between-accommodations-and-modifications>
- Thurber, A. and Bandy, J. (2018). Creating Accessible Learning Environments. Retrieved [8/24/2019] from <http://cft.vanderbilt.edu/guides-sub-pages/creating-accessible-learning-environments/>
- Villa, R. A., Thousand, J. S., Nevin, A., & Liston, A. (2005). Successful inclusive practices in middle and secondary schools. *American Secondary Education*, 33(3), 33-50.
- Vygotsky, L. S. (1993). The collected works of L.S.Vygotsky. Vol.2: *The fundamentals of defectology* (abnormal psychology and learning disabilities) (R.W.Rieber & A.S. Carton, Eds.). NY: Plenum Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Washburn-Moses, L. (2008). Teacher candidates' understandings of instructional strategies in a changing field. *Action in Teacher Education*, 29, 66-82.
- Wilson, S. M., Floden, R. E., & Ferrini-Mundy, J. (2001). Teacher preparation research: Current knowledge, gaps, and recommendations (No. R-01-3). East Lansing: Michigan State University, Center for the Study of Teaching and Policy.

Witmer et al. (2018). Accommodation use during content area instruction for students with reading difficulties. *Reading & Writing Quarterly*, 34(2), 174-186.

Appendices

Appendix A

Argument Writing Checklist

Argument Essay Checklist

Name: _____

Crew: _____

Intro paragraph:

Harm
Significance
Urgency
Thesis

Body P #1:

TS
Evidence
So what?
CS

Body P #2:

TS
Evidence
So what?
CS

Counter/Rebuttal P:

Short counter
Strong rebuttal
Evidence?
So what?

Concluding P:

Restatement of thesis
Future

Also include:

Ethos, Pathos, Logos
Transition words
Persuasive words
Parenthetical citation
Conventions
MLA Bibliography

Comments:

Argument Essay Checklist

Name: _____

Crew: _____

Intro paragraph:

Harm
Significance
Urgency
Thesis

Body P #1:

TS
Evidence
So what?
CS

Body P #2:

TS
Evidence
So what?
CS

Counter/Rebuttal P:

Short counter
Strong rebuttal
Evidence?
So what?

Concluding P:

Restatement of thesis
Future

Also include:

Ethos, Pathos, Logos
Transition words
Persuasive words
Parenthetical citation
Conventions
MLA Bibliography

Comments:

Appendix B

Baseline Writing Prompt

Argument Writing - Change My Mind



Steps:

1. Choose any school-appropriate topic which has two sides, a pro and a con position.
2. Choose your position in the argument about your topic.
3. Assume I disagree with you.
4. Write me a letter to “Change my mind” so that I will change my position and agree with you.
5. You will have 45 minutes to plan, research, organize, and write your letter.
6. Use a Google Doc to write your letter.
7. Turn it in on Google Classroom at the “Argument Writing - Change My Mind” assignment.

Appendix C

Teacher Field Notes Template

Researcher Field Notes

Date	Periods 1+2	Periods 4+5	Periods 6+7

Appendix D

First Student Journal Reflection

Argument Writing - Reflection #1

Name/Crew: _____

1. As we begin our argument writing unit, please rate yourself on the following scale. Indicate your honest answer by putting an X in the box that best describes you in relation to each statement. Do not place your mark on the lines halfway between two choices.

Statement	Very much like me	Somewhat like me	Neutral	Not much like me	Not at all like me
I have struggled with argument writing in the past.					
I find argument writing interesting or fun.					
This year's unit looks interesting/fun to me.					
I am a confident argument writer.					

2. Choose two writing goals from the list below where you would like to challenge yourself to grow in your writing during this unit. Circle your two choices.

I want to learn to use a formal academic voice in my writing.	I want to learn how to find and properly cite reliable sources.	I want to learn how to write an effective counterargument and rebuttal.
I want to learn how to write a strong thesis statement.	I want to learn how to use in-text citations and an MLA bibliography.	I want to learn how to use ethos, pathos, and logos in my argument writing.
I want to learn how to organize my paragraphs, claims, and evidence.	I want to learn how to paraphrase and quote sources to avoid plagiarism.	I want to learn how to write strong topic sentences and concluding sentences.

3. Explain why you have chosen the two goals you've circled above: _____

Appendix E

Second Student Journal Reflection

Argument Writing - Reflection #2

Name/Crew: _____

1. As we wrap up our argument writing unit, please rate yourself on the following scale. Indicate your honest answer by putting an X in the box that best describes you in relation to each statement. Do not place your mark on the lines halfway between two choices.

Statement	Very much like me	Somewhat like me	Neutral	Not much like me	Not at all like me
I struggled with this argument writing unit.					
I found this writing unit interesting or fun.					
This year's unit helped me grow my writing skills.					
I am a more confident argument writer now.					

2. Choose outcomes from the list below where you saw growth in your writing during this unit. Circle your choices, as many as apply.

I learned to use a formal academic voice in my writing.	I learned how to find and properly cite reliable sources.	I learned how to write an effective counterargument and rebuttal.
I learned how to write a strong thesis statement.	I learned how to use in-text citations and an MLA bibliography.	I learned how to use ethos, pathos, and logos in my argument writing.
I learned how to organize my paragraphs, claims, and evidence.	I learned how to paraphrase and quote sources to avoid plagiarism.	I learned how to write strong topic sentences and concluding sentences.

3. Using one of the circled outcomes above, explain how this writing unit has prepared you for the rigors of high school writing next year: _____

Appendix F

Introductory Paragraph Graphic Organizer

Your name:	
------------	--

Argument Writing - Intro Paragraph Table (Graphic Organizer)

McGill - Core 8

Use this table as a graphic organizer to help you create your introductory paragraph. As you fill in the table, you are actually writing your rough draft of the paragraph. Choose your process paper topic and be sure to use complete sentences.

First, work alone to complete the table. Once you're finished, then confer with your Q3 writing partner. Share what you've written and ask for feedback. Give a compliment, and also constructive feedback to your partner about their writing.

Lastly, with your partner, please confer with Mrs. McGill before moving onto the next table: body paragraph 1 which will be shared at the next writers' workshop.

Include:	Your writing here:
A sentence identifying a harm happening around us, either locally, in our state, nationally, or worldwide.	
A sentence or two about how widespread this harm is. Your sentence will indicate how many people/animals/ecosystems are impacted, and may include some statistics.	
A sentence about how urgently we must act to prevent further harm, and why action must be taken now.	
A sentence or two about your plan to make a change that will address the harm. This is your thesis statement. Be specific. State who is responsible for enacting this change.	