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How Can UDL Be Used To Increase Equity And Access At An Abe Site?

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How can UDL be used to increase equity and access at an ABE site?

by

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A capstone submitted in partial fulfillment of the requirements for the degree of

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DEDICATION

To my family, who gave me the time and grace to complete this degree even though it meant a heavier burden for them. Caleb and Carlie, you will always inspire me to do better and be better. I hope that I can in turn inspire you. To my husband Chris, you are my rock through the hardest of days and the darkest of nights. We have overcome all of life's challenges together - especially so many things that were beyond our control the last few years while I was earning this degree. Please know that I do not take that for granted!

To ABE, the "hidden jewel" of education and the wonderful students I get to serve. May I never take for granted how much you taught me already. May we continue to learn and grow together for many years to come!

"Why diagnose for learning disabilities in our adult learning center students? Why not treat every ABE/GED student alike and do our best to remediate the specific weaknesses? … Readers will need to arrive at their own answers to these questions; however, most will concur that the learning disabled adults are not like other students who come into the center. The uneven performance and pattern of frustration these students have experienced requires knowledge and understanding by the facilitator to help the student understand him/herself, as well as to appropriately refer the student to other agencies if needed."

United States Department of Education, Division of Adult Education and Literacy (1992). *The federal adult education and literacy program*. Washington, D. C.: U.S. Department of Education, Division of Adult Education and Literacy.

CHAPTER ONE

Introduction

Many people may look right past modifications to everyday objects intended to make life more equitable for someone with a physical disability. These changes have become commonplace thanks in part to the Americans with Disability Act of 1973. For someone like myself who was born after 1973, I never knew a time without it. I thought little of cuts in a sidewalk which allows someone to not need to "jump the curb," entrances to buildings with a ramp beside the steps, or elevators in businesses. In much the same way that ADA has changed the way we design new buildings and remodel older buildings, Universal Design for Learning (UDL) may be able to change education for adult students within Adult Basic Education (ABE) programs taking into account physical and mental disabilities, and other challenges. This paper will explore the question, *How can UDL be used to increase equity and access at an ABE site?* The chapter will give background information on ABE students as well as information about the author's perspective on working in ABE.

ABE includes students that are working toward a high school credential, learning English as a second language, gaining basic skills in literacy, math, and computer programs, while simultaneously preparing students for postsecondary education or employment. Additionally, ABE sites can also teach citizenship classes to prepare immigrants and refugees for the path to become a U.S. citizen. Across the U.S., there are approximately 1.2 million adult learners in ABE (COABE, 2022). Within the state of Minnesota, approximately 60,000 adults are served annually. More specifically, at the Rochester Family and Literacy Site where I work, nearly 2,000 are served annually.

I consider ABE programs to be the "hidden jewel" within education because it fills in the cracks of educational needs for those beyond "traditional education." Although I have worked with adult students before, students within ABE are different. Working alongside them daily both humbles and inspires me. It is this inspiration that motivated me to return to graduate school specifically to teach in the area of ABE. Because of my passion, I want to do all that I can to ensure students' success by removing barriers and planning for ways to make their educational experiences equitable and accessible.

I have worked with adult students nearly all of my adult life, working as a college administrator before transitioning to ABE four years ago. I offer this analysis as a current ABE educator in Minnesota. I am a white, nondisabled English-speaking woman who has lived in Minnesota most of my life. I am a first-generation college student; however, I acknowledge the privilege afforded to me in my educational opportunities including finishing high school within a traditional timeframe and attending higher education institutions of my choosing. My educational experience differs greatly from a traditional ABE student.

ABE students are different from the average college student. Generally speaking, ABE students have not been successful through traditional education routes. There are a variety of reasons for this, all of which I have seen firsthand. ABE can be a significant and final education option for some adults with known learning disabilities. One study found that up to 90% of MN ABE participants have a learning disability (Ryan & Rice, 1993). Even with this large overrepresentation, this is often a population that is

overlooked. Once a student is beyond the traditional K-12 system, few services are offered, especially for adults who have not already been diagnosed.

Overall, many of these students are without a learning disability diagnosis. However, they have classic signs of struggles with disabilities such as: significant discrepancies between intellectual ability and school performance; specific avoidance of delegated tasks despite ability in similar tasks; hatred of reading; history of social and learning problems in school; patterns of impulsivity, outbursts of anger, easily frustrated, and problems with concentration (Kaplan & Shachter, 1991) . The lack of diagnosis can be the product of many things. For example, many new immigrants and refugees lack previous formal education when they start to attend classes within ABE. Although formal education is not a guarantee of services like special education, it is often a starting point for many within the U.S. education system.

Additionally, other ABE students who have studied within the U.S. may have been unsuccessful in school because of an undiagnosed learning disability, other trauma, unresolved issues, and more, which caused them to drop out. Typically ABE students have a greater likelihood of adverse factors that impact their educational success. Out of desire to improve their economic standing, these students may be returning to school to get specific career-focused skills to transition into the workforce. A student who was not successful in other academic settings may need some additional support to reach the goals of ACES (Academic, Career, and Employability Skills) and TIF (Transitions Integration Framework); both of these are benchmarks within ABE for adult students to be successful beyond the classroom as they transition into work and other educational opportunities.

Adult students are unique because of their funds of knowledge that they already have to supplement their learning. For example, a student with limited English language skills may understand concepts of shopping for food even though they may lack some vocabulary skills. Because ABE students are adults, their ability to adapt within a new language and culture needs to be taken into consideration as funds of knowledge; however, it is still necessary to recognize that additional challenges may be present. A differentiated lesson plan can take into consideration this previous knowledge.

Within each of these concept areas, students are returning to school as an adult with some skills but also some challenges. The reality is there are not the same resources available within ABE to provide a diagnosis of learning disabilities. The cost for diagnosis as an adult often falls upon the student rather than the educational system. Therefore, it is not a sought-after option by many students. In turn, students attempt to be successful without all the tools available to help them. Along with that, because these are adult students, chances are they have learned to adapt and cope in order to function as an adult with limited reading skills, limited language skills, or some other kinds of limitations.

That is where UDL comes into play because it benefits all students regardless of ability, but especially those with undiagnosed disabilities. By taking into consideration those who need the services the most, it creates an environment where everyone benefits. By changing the culture to incorporate UDL across ABE, it will give access to those who may not even realize they would benefit from it. It will also give teachers the abilities to adapt without focusing on an individual student and whether or not services are needed. Within younger age groups from preschool to high school, research has shown that

interventions provided for students with a learning disability can benefit a greater range of students including adults (Taymans, 2012).

Beyond accommodating for any learning disabilities, UDL also takes into consideration other challenges that affect ABE students. Nearly half of the ABE students are learning English. ABE also includes incarcerated students working on credentials like high school equivalency. The impact of these students' success is felt within families and communities. Making programs accessible and equitable improves more than the individual student's life.

UDL is not a new concept within ABE. Within Minnesota, ABE teachers, program managers, and volunteers have access to training and resources for students with disabilities. Physical And Non-apparent Disability Assistance (PANDA) is an organization that provides materials for Minnesota ABE programs as well as nationally. Topics include: assistive technology, brain injury, mental health, chemical health, Fetal Alcohol Syndrome Disorders (FASD), learning disabilities, vision and hearing loss, physical disabilities, ADHD, and Disability Awareness and the Law. Adaptive equipment and testing materials are available for sites to check out. It was through a PANDA training program that my curiosity was piqued. Within the several week training, I learned how to adapt my classroom using UDL concepts to make the lessons and space more equitable and accessible; however, I was left wondering how much impact a single classroom can have when a student progresses out of this class. It is only if UDL is adapted across a site as part of a culture shift that students will gain the full benefits.

An additional focus across school districts, including mine, is Diversity, Equity, and Inclusion. Diversity refers to all aspects of human differences: social identities such as race, ethnicity, color, sex, gender, socio-economic status, language, culture, national origin, religion, age, ability, and more. Equity refers to fair and just practices and policies to ensure all members can thrive. Equity is different from equality; equality implies that everyone be treated the same. Equity means addressing and acknowledging the advantages and disadvantages that exist. Lastly, inclusion refers to everyone having respect, a sense of belonging, and the opportunity to participate and achieve their full potential. I have participated in several workshops related to these topics, and continue to work toward making my local ABE site more diverse, equitable, and inclusive. The population of ABE students is many times already diverse and inclusive. It can only be equal if everyone starts with equitable opportunities.

UDL is a framework to design learning environments that are accessible and level-appropriate for all students. UDL strives to change the design of the environment rather than change the learner. In the same way that ADA has changed design, UDL intentionally reduces barriers so all students can learn in a rigorous and meaningful setting while accounting for access and equity.

The changes made through policies of ADA have created “universal usability,” meaning that items are created so they can be used by the greatest number of people in the greatest number of circumstances while being commercially practical. Practical examples of universal usability for students already exist through tools like text-to-speech and dictation tools. These tools are across all technology platforms which means they are accessible to all students; however, if students do not receive enough training on how to

use them for everyday use, they do not receive the full benefit. These tools may inherently benefit one group of students more than another, but they benefit all users, not exclusively students with diagnosed disabilities.

Additionally, UDL by nature is both universal and individual. Teaching the teacher to work with both concepts at the same time within the same classroom presents a challenge, especially for long-term teachers. Differentiated instruction is a classic practice within ABE because teachers need to consider individual needs; differentiated instruction is also part of UDL. However, UDL promotes teachers to create a generalized plan before meeting students (proactive approach) as well as instruction in response to individual needs (reactive approach). By working with universal usability as UDL promotes, teachers can design lessons that are usable by the widest range of students encompassing the widest range of possible situations.

There are great benefits available to ABE students when UDL is successfully used within a single classroom. It would seem logical to assume that if UDL is implemented across a program when a student progresses to different levels, there is a chance for greater success. However, UDL is very broad. Within the UDL framework, the work can be customized using six theoretical facets in learning, nine guidelines, and 31 implementation checkpoints. With that much variation in factors, it can be difficult to gauge the effectiveness of the program. Along with that, if students change teachers, change classes, or take time away, it is hard to guarantee continuity of the UDL framework. Through professional development training sessions, ABE teaching staff will be able to create a culture that encompasses UDL to benefit all students. It is evident the

adherent benefits to all learners including adults utilizing the UDL framework, in particular the population within ABE.

Factors that determine important adult outcomes such as kind of employment, income level, and on the job training opportunities, are directly linked to an adult's individual level of literacy and education. These same factors can also be linked to likelihood for welfare services and time spent in a correctional institution (Taymans, 2012). The need for skills provided through ABE programs continues to increase. These opportunities provide necessary skills to improve the skill set of unemployed and underemployed individuals.

As Ryan and Rice (1993) discussed, there may be a need for systemic change within ABE to accommodate the unique learning styles brought on by suspected learning disabilities. UDL has the potential to be the change that is needed in ABE.

CHAPTER TWO

Review of Literature

"The field of adult education is rooted in social justice, equity, and inclusion."

McGinty, 2018, p. 1

Indeed, adult education is rooted in social justice, equity, and inclusion as McGinty (2018) stated. The unique diversity that is represented within ABE adds to the need for equity and access. This chapter will review the literature on how these issues can be addressed through UDL. It will further explore the research question, *How can UDL be used to increase equity and access at an ABE site?*

Student Diversity in ABE

Adult Basic Education (ABE) programs within Minnesota serve approximately 60,000 adult students each year with a wide range of educational needs and abilities from preliterate to near college levels (MNABE, 2020). Within that 60,000, nearly 50% are English Language Learners, more than half (60%) lack a high school diploma, nearly one third are unemployed (29%), and 12% receive some kind of public assistance such as Minnesota Family Investment Program (MFIP), Supplemental Nutrition Assistance Program (SNAP), and Supplemental Security Income (SSI). The adult learners with a specific learning disability tend to be overrepresented with ABE (Mellard & Patterson, 2008). ABE programs within Minnesota improve the educational skills of adults in poverty and on public assistance because basic skills of reading, writing, math, digital literacy, and ESL are integrated with employability skills that are necessary to find and keep a job (MNABE, 2020). Adults lacking literacy skills or high school credentials are more likely to be unemployed, living in poverty, or receiving some form of government

assistance compared to adults who completed high school (Mellard & Patterson, 2008). The reality of these negative economic and social conditions are even higher for adults with a learning disability in comparison to those with a similar literacy or education level (Mellard & Patterson, 2008).

Because there is such a high level of adult students with learning disabilities including those that are undiagnosed, it is critical to take into consideration the historical aspect that leads up to today. As Ryan and Rice (1993) chronicalized, there is a long history of ABE students with learning disabilities, estimated to be as many as 80% in 1979. The authors asserted that from this it is reasonable to assume that ABE instructors are more likely to teach students with a learning disability compared to other adult learning environments. At the time of the article, nearly 30 years ago, Minnesota ABE directors estimated 90% of students to have some kind of learning disability. More recent data could not be found at this time. However, because practices within the K-12 system have changed to more readily recognize and accommodate learning disabilities, there is a greater self-awareness in young adult learners, therefore, learning disabilities are more likely to be diagnosed (Taymans, 2012). Learners receiving a diagnosis may change the balance of uncertainty of ability that goes undiagnosed.

ABE is thought to be the final educational option for some adults lacking basic skills including those with learning disabilities (Ryan & Rice, 1993; Taymans, 2012). ABE programs, which are considered public education, entitle qualified people with disabilities to services through Title II of the ADA (McGinty, 2018). These adult learners with disabilities may need reading, writing, math, and problem solving skills. Additionally, they need skills to overcome barriers in the workplace; they also need

access to programs and services that offer a varied type of education and training (McGinty, 2018).

In addition to serving students with a learning disability, ABE also teaches new immigrants and refugees. Within Minnesota in 2014, a quarter of a million residents needed ESL services out of the 385,000 foreign-born residents (MNABE, 2020). Of that population, it is estimated that 63% have no postsecondary education or high school credential. ABE programs not only provide ESL services, but they help new residents obtain citizenship, high school equivalency, as well as prepare them for additional education and training.

Keeping in mind that ABE serves a diverse population, it follows that educators need to be mindful of culturally responsive teaching/pedagogy (CRT). CRT takes into consideration a student's unique cultural background as part of their learning experience (Ladson-Billings, 1995). In more recent years, CRT has added the focus of "social justice education" (Winchell, 2022). Additional theories that address adult learning are andragogy, transformational learning, and independent learning (Mellard & Patterson, 2008). Each of these theories paired with UDL can take into account diverse perspectives, values, starting points, and opportunities for showing knowledge (Bass & Lawrence-Riddell, 2020). CRT can also help educators identify and break up systems of oppression that exist within the classroom as well as acknowledge their own bias through reflection and support students of diverse backgrounds (Winchell, 2022).

UDL provides a framework that accommodates the diverse population within ABE (Rogers-Shaw et al., 2018). Because ABE students are adults, they have multiple

roles and responsibilities outside of the classroom, which directly impacts their time limits and energy toward schoolwork (Rogers-Shaw et al, 2018).

Universal Design

Architecture and classroom learning may seem a far distance apart, but the roots of UDL started with Universal Design (UD). UD is credited to Ron Mace at North Carolina State University in the field of architecture. This concept is defined as an approach to designing buildings that are accessible to all people regardless of ability during the initial build rather than adding them after the building is complete (McGinty, 2018). Altering the structures to be more accessible after it is built takes away from the overall aesthetic design as well as being impractical and costly (Lancaster, 2008). UD removes obstacles within an environment from the onset, increasing the functionality for all users and not simply special populations (Dewi & Dalimunthe, 2019; Lancaster, 2008). Examples of UD include ramps alongside stairs, centrally located elevators, sidewalk cuts, automatic doors, closed captioning, and more. As Lancaster (2008) explains, by providing multiple options such as stairs and ramp, it takes away the need for a single method to work for all people all of the time; these options create greater access for those who need it but it gives opportunity for people to choose. For example, someone may prefer to take the stairs to stay in shape or to avoid waiting for an elevator; conversely, someone may prefer to take an elevator if they need to go to a higher floor or need to move items.

UDL developed from UD

From Mace's concepts, David Rose, Anne Meyer, and colleagues at the Center for Applied Special Technology (CAST) created the framework of UDL to design

curriculum to accommodate all learning needs for all students in the early 1990s (Dewi & Dalimunthe, 2019). To put it into historical context, the principles were developed following the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 (Edyburn, 2005). At that time, there was significant national interest on inclusive placement for the majority of students with disabilities to be placed into general education classrooms (Edyburn, 2005). Edyburn (2021) points out that while students with disabilities may have gained access to classroom space, there were still questions on whether or not students could access the full general curriculum. Instead of adapting curriculum via accommodations, teachers design curriculum that is flexible and adaptable to meet the needs of all students (Lancaster, 2008).

UDL Framework

As a framework, UDL focuses on flexibility and multiple means of representation, expression, and engagement (Black et al, 2015; Courey et al, 2013). Each guideline is broken down further into concepts of access, build, internalization, and goals (Wakefield, 2018). These guidelines can be broken down into the why, what, and how of learning (Wakefield, 2018).

The first principle of UDL is multiple means of representation. It is the way materials are presented (Black et al, 2015). For students, this gives multiple ways to access the information; it is the *what* of learning (Coyne et al, 2012). Another way to explain this is the various means that concepts can be understood by students (Levey, 2021). This principle takes into consideration students' preference toward information presented in images or sounds versus traditional written form. It can help to overcome

barriers in hearing, vision, language, culture and other challenges with learning (Black et al, 2015; Dewi & Dalimunthe, 2019).

The second principle is multiple means of action and expression. In other words, there are various ways for students to demonstrate their knowledge (Black et al, 2015). For students, it gives them multiple ways to approach a task; it is the *how* of learning (Coyne et al, 2012). It can help to overcome barriers to limited physical function, impaired executive functioning, barriers in language, and different approaches to learning (Black et al, 2015; Dewi & Dalimunthe, 2019). This principle also takes into consideration a student's communication preference, for instance those who prefer to communicate through writing rather than speech, or giving students the option to record a speech ahead of time and play it for the class (Levey, 2021).

The third principle is multiple means of engagement. It provides various activities for participation (Black et al, 2015). For students, it gives them multiple ways of being and staying engaged; it is the *why* of learning (Coyne et al, 2012). The core belief for this is even though students may learn differently, they can still be motivated to learn; it can help to overcome barriers to sensory disorders, cultural, personal challenges, and contextual knowledge (Dewi & Dalimunthe, 2019). Dewi and Dalimunthe (2019) further explains that this principle takes into consideration different learning styles: working in groups versus working individually; structured routines versus spontaneous activities, and more.

Although UDL was originally developed for a K-12 setting, there is increased potential for it to be applied for adults as well (Black et al, 2015). In fact, UDL is mentioned as a concept for adult student success within the Higher Education

Opportunity Act (HEOA) of 2008; this was the first time that UDL was included in federal legislation (CAST, 2018). HEOA specifically outlined ways that UDL should be part of teacher education and training for post-secondary instruction (CAST, 2018). Because UDL takes into consideration the needs of diverse learners, it can be an appropriate framework to design lesson plans (Courey et al, 2013).

Universal Design for Instruction and Universal Usability

Similar to UDL is Universal Design for Instruction (UDI). Like UDL, UDI has its roots in UD, but focuses on the instructional design process to improve student learning, primarily on environment and access (Black et al, 2015). UDI is an approach to teaching that utilizes proactive design and classroom strategies to benefit the most students (Black et al, 2015). In turn, UDL focuses on the learner, and it is based in the science of learning.

Another principle derived from UD is universal usability. Similarly to UDL and UDI, the focus is on designing products for the widest range of people to use them; however, it differs in that it is not exclusively focused on an educational setting but rather a commercial one (Edyburn, 2021). Universal usability started with focus on accessibility for people with disabilities but now the benefits can improve the user's experience for everyone. Some aspects of universal usability cross over into UDL especially with considerations toward technology such as computers, smart phones, and other devices.

Edyburn (2005) gave several examples of universal usability that always work for UDL. One example is text to speech which allows users to listen as the text is read aloud by a device. This benefits learners but also people who may need enlarged text such as

someone who uses reading glasses. Another example is dictation tools that allow users to convert speech to text. This benefits learners with poor handwriting and/or difficulty spelling but also people as they may be multi-tasking to communicate hands free. In a classroom setting, tiered text (such as Newsela) provide users with multiple versions of the same text at different lexical levels in real-time. This is sometimes referred to as spiral curriculum. There is increased access for materials like this as more materials become available in digital formats.

Why UDL?

The UDL framework emphasizes a flexible curriculum, creating greater accessibility for students with diverse backgrounds, learning styles, and abilities (Courey et al, 2013). As previously discussed, all of these barriers may be found in student populations within ABE. Because of that, a proactive approach to learning and teaching can overcome these barriers. UDL is considered to be one of these proactive approaches (Courey et al, 2013).

Additionally, UDL can accommodate a broader spectrum of potential learning challenges. Some of these may include: social status, culture, learning styles, languages, interest, and motivation. Even if there are not obvious barriers, UDL can also provide additional opportunities for struggling students as well as more advanced learners (Courey et al, 2013). Courey et al (2013) emphasize that all students have learning preferences and learning styles, not just those with additional challenges; UDL can provide a way to accommodate all learners within one classroom setting.

Lastly, focusing on UDL is also a focus on technology. Technology has many aspects of UD within their design that lend themselves toward UDL. For example,

accessibility features on an iPad such as contrasting colors or text-to-speech may accommodate someone with vision disabilities; however, it can also accommodate an auditory learner or a student who struggles to focus. With UDL, technologies like these can be incorporated into the mainstream portion of the classroom where it is unknown who can benefit from them.

Recognized challenges with the UDL framework

One recognized challenge exists because teachers must know what they expect students to learn before planning all aspects of the class: materials, methods, and assessment (Courey et al, 2013). Some argue that it is similar to the chicken versus the egg situation. How can you adequately plan for students before you meet them? Along with that, many ABE programs are continuous enrollment, which means that a student may join the class at any point within a session. The student population is ever changing; therefore, it is hard to build consistency, continuity, or a culture.

Another recognized challenge with UDL relates to the teaching staff rather than the students. Traditionally teacher-centered instruction is what most teachers learn and how they were taught (Courey et al, 2013). Along with that, more than 80% of textbooks used within schools emphasize teacher-centered lessons. More time and training with UDL is needed to change these deep-seeded traditions within the U.S. Education system including ABE (Courey et al, 2013). More recently, UDL is starting to be part of teacher education programs (Boysen, 2021).

The stronger challenge for UDL derives from the lack of research to provide basic evidence for the benefits UDL claims to provide to all students (Boysen, 2021). Boysen

argues that UDL is not backed by hallmarks of a successful education practice: strong theory and research methods.

Although UDL as a framework is relatively new, it has similarities to other concepts including learning styles (Boysen, 2021). Boysen (2021) argues that UDL bears many similarities to learning styles which some consider to be discredited. Additionally, because of the complexity of UDL with six theoretical factors in learning, nine guidelines, and 31 implementation checkpoints, it is difficult to decide what counts as UDL and what it means to fully implement UDL (Boysen, 2021). In fact, the fundamental principle of UDL that allows students various ways of measuring their learning, creates doubt on the effectiveness to measure their learning. Boysen (2021) compares this complexity as a Gordian knot that cannot be easily untangled.

Student Access in ABE

ABE traditionally offers flexibility for busy, working adults to improve their basic skills. ABE programs provide accessible attendance options by offering day, night, and online classes. Sites are able to leverage relationships with public schools, WorkForce Centers, Community and Technical Colleges, businesses, correctional facilities, libraries, various non-profit organizations, and tribal centers. Classes are offered free of charge thanks in part to funding provided through state and federal programs (MNABE, 2022).

At times, accessibility and usability are used interchangeably; however, there can be differences. Black et al (2015) define usable as the concept that students can use materials efficiently, effectively, and with satisfaction. Whereas, accessibility is the ability to easily reach or enter. An example of the difference can be found on some

webpages; a student may be able to access the webpage; however, they may not be able to use the features on it making it ineffective (Black et al, 2015).

The varied class options provide access but another consideration is individual needs for accessibility of materials and the learning environment. As noted above, ABE serves a large number of students with disabilities. By offering variations in learning and instruction, such as materials in different formats, students with varied abilities and backgrounds can access all items for the class (Black et al, 2015).

Within education, accommodations are changes made to existing materials and facilities that are readily accessible and usable by students with disabilities. This may include: equipment and devices; adjustments to learning materials, exams, and policies; and qualified assistants such as readers and interpreters (Black et al, 2015). For adult learners to qualify for reasonable accommodations, they must prove how their disability limits their participation. The burden of proof can be a barrier because of the need to see a medical professional, such as a licensed psychologist, and the cost associated with doctor visits to document the limitations of the disability (McGinty, 2018).

Legislation dictates that provisions should be made to be the least restrictive environment (LRE) for students with disabilities to learn side by side with other students in the classroom utilizing accommodations (Jimenez et al, 2007). McGinty (2018) provided common examples of accommodations within education. For a student with a hearing impairment, common accommodations may be auditory aids, visual aids, and preferential seating. For a learning disability, it may be a notetaker, extended time on tests and assignments, and alternative texts. Additional options can be large print text, supplemental light, digital texts, or alternative testing locations. There can be other

factors that affect students that cannot be accommodated: room temperature, noise levels, seating arrangements that provide limited movement, etc.

There may be reasons that students choose not to utilize accommodations even if they qualify. McGinty (2018) stated that a lack of trust and concern for negative consequences may lead individuals to self-accommodate rather than use structured services. Traditional accommodations tend to be less appealing, separate learners with disabilities, and be more costly overall (Rogers-Shaw et al, 2018). In addition to that, some accommodations may create unintentional barriers because accommodations are made after a curriculum is developed (Black et al, 2015). Examples from Black et al (2015) of where accommodations may present challenges would be Closed Caption Television (CCTV) for students with low vision, which may cause eye strain. Another example would be hearing aid devices for students with hearing impairments that will pick up background noise, making it difficult to concentrate.

In fact, Alnahadi (2009) argues that "Sometimes it is more efficient to look within the normal, existing technology to find useful devices or software for students with disabilities than to just focus on finding a specific technology designed specifically for people with disabilities" (p. 19). An example of this could be the accessibility features built into an iPad. An iPad is not a device that is specifically designed for students with disabilities; however, the readiness of the device makes it an effective tool for all students including those with disabilities. Another example would be a calculator; a student can solve the problem using the technology and understanding the logic of how to do it but it eliminates mathematical errors. Technology used in this way has the potential to increase

positive school performances and help prepare students for life after school (Alnahdi, 2009). Both of those outcomes are vital within ABE.

Recognizing that there are limitations with accommodations, educators may strive to create a barrier-free learning environment by utilizing the principles of UDL (McGinty, 2018). UDL varies from accommodations because it creates the curriculum by involving different learning modalities and strategies for learning, such as individual learning preferences, flexible environments, and varied learning styles (Black et al, 2015). Using UDL benefits everyone alike, tends to be more inclusive, and less costly (Rogers-Shaw et al, 2018).

Universal Design for Learning provides access for all students. It takes into consideration changes made proactively for everyone which varies from accommodations that are applied for a disability rather than the individual (Black et al, 2015; Jimenez et al, 2007). Student groups that may benefit can include ESL, students with multicultural backgrounds, and students with varied abilities (Black et al, 2015). Those groups of students are the learners that participate in ABE programs. The core belief of UDL is that by designing for diverse learners, the results will be a better learning outcome for all learners (Coyne et al, 2012; Jimenez et al, 2007).

Right now, the world of education is going through large changes because of advancements in technology. This was true in 2009 when Alnahdi stated that technology is a necessity in education for all learners - with or without disability. Each year since then has reaffirmed the role that technology plays within a flexible and adaptable learning environment (Black et al, 2015; Coyne et al, 2012; McGinty, 2018). Copeland et al (2019) noted that many assistive technologies and devices that may have started as

accommodations for disabilities are beneficial to other populations through UDL. For example, closed captioning is an accommodation for those who are deaf or hard of hearing; however, it also creates accessibility and ease of access for ELL, varied learning styles or learning preferences (i.e., people who prefer to learn by hearing and reading information), cognitive or processing differences, and emerging or developing literacy learners (Copeland et al, 2019). UDL offers increased accessibility and learning for all students through multimodal options (Boysen, 2021).

Utilizing technology to increase accessibility is a key principle within UDL (Coyne et al, 2012; Jimenez et al, 2007). Within the research, there are countless examples of how technology can be used as part of UDL: videos that have closed captioning, images that have alternate text, websites that have varied reading levels (especially if students are able to self-select a level), audible digital text, word and phrase synthetic text, hyperlinked glossary, and many more (Alnahdi, 2009; Coyne et al, 2012; McGinty, 2018). Because the technology is ever changing, teachers need to stay up to date on the usefulness and capabilities; otherwise, they will be more reluctant to use them (Alnahdi, 2009).

To promote teaching that is inclusive to all learners, adult educators need to understand how to reduce barriers (McGinty, 2018). Options for inclusive learning environments are created by teachers who are approachable and set expectations (Black et al, 2015). UDL can promote open communication and a positive learning environment; it can diminish insecurities and stigma students may have related to accommodations for a disability. This proactive approach of building curriculum utilizing UDL eliminates concerns students may have with accommodations and puts the

focus on learning by anticipating the needs for all learners (Black et al, 2015; Jimenez et al, 2007). Utilizing UDL goes beyond the minimum requirements of ADA accommodation standards. Using UDL promotes a socially inclusive approach in the classroom regardless of physical, cognitive, cultural, socioeconomic status, and language limitations that can meet the needs of the changing dynamics in education (Dewi & Dalimunthe, 2019; Jimenez et al, 2007; McGinty, 2018; Rogers-Shaw et al, 2018).

Equity in ABE

Traditional educational settings have a long history of struggling with equity in the classroom. Marginalized students within educational settings such as those with disabilities, language barriers, and low socioeconomic status, are many times less successful compared to students from the dominant culture (Rogers-Shaw et al, 2018). Through the years, attempts to increase accessibility did not significantly improve equity for historically disadvantaged students; in some instances, it had the reverse effect (Indar, 2018). Indar gives examples of failed attempts through racial integration, which led to white families moving to the suburbs (often referred to as “white flight”) from inner city schools, and ability tracking of students to integrate students into dominated white classrooms, which led to stereotypes of race and ability.

Similarly, there was inclusive education intended to create equity for students with disabilities through Section 504 of the Rehabilitation Act (passed in the 1970s) and the 1990 Individuals With Disabilities Education Act (IDEA). Through IDEA, students with disabilities were required to be placed in LRE (Rogers-Shaw et al, 2018). However, accommodations offered to students may be ineffective because they focus on inabilities

rather than seeking to understand the students' needs within the classroom (Rogers-Shaw et al, 2018).

Consider the analogy Copeland et al (2019) shared regarding people who wear glasses or contact lenses; they are not automatically labeled as having a disability. Their need for accommodations have been met and accepted through social norms. Through inclusive education, barriers can be removed based on ability, which leads to increased social justice. One way to create accessibility opportunities and reduce barriers for learners outside of the mainstream is UDL (Copeland et al, 2019; Indar, 2018). In fact, many aspects of UD have become so commonplace, that people do not even consider them as changes to improve equity and access: curb cuts; lowered level of entrance and egress; automatic/push button access for doors; and levered handles compared to traditional door knobs (Copeland et al, 2019).

To ensure the greatest impact of accommodations, location is key. Services and items cannot be tucked away into an obscure area; they must be accessible as part of the mainstream area (Copeland et al, 2019). There needs to be a focus on flexibility and reducing barriers within a learning environment that meets the needs of students who learn differently (Copeland et al, 2019; Indar, 2018).

The flexibility of UDL promotes equity because students do not need to worry about potential barriers and space issues that could impact learning (Black et al, 2015). When considering issues of access for all learners, UDL is a promising approach to achieving social justice within a diverse population (Rogers-Shaw et al, 2018). The philosophical shift focused on UDL enables adult educators to practice the diversity that they discuss (Copeland et al, 2019). When considering these theory of knowledge

concerns, it also relates to social justice and educational practices (Copeland et al, 2019). These marginalized populations, such as students with disabilities, lower socioeconomic status, language barriers, and other non-mainstream populations, already struggle more in a traditional education setting; it is recognized that traditional curricula and teaching methods cannot improve all challenges (Copeland et al, 2019).

Meeting the needs of the marginalized will also meet the needs of the middle, recognizing the intersectionality of those with multiple disadvantages. Indar (2018) gives the example of an African American female who is disabled who could potentially benefit in multiple ways from the principles of UDL. In fact, UDL policies have been incorporated and endorsed into federal education law because of its significant role in addressing diversity and equity issues in education (CAST, 2018; Indar, 2018). The concepts of UDL take into consideration the constantly growing diverse populations in educational settings; UDL promotes authentic, accurate, and authoritative materials that are accessible to all learners (Rogers-Shaw et al, 2018). These same authors (2018) explain that the principles of UDL can be applied to all student populations regardless of skills, needs, or motivations, within learning objectives, teaching methods, course materials, and assessment techniques. In this way, UDL takes on a justice focused approach by creating greater opportunities for success in adult students (Rogers-Shaw et al, 2018).

CHAPTER THREE

Project Description

Introduction

My experience of working as an administrator and teacher at an ABE site has given me a unique perspective on student success. One idea that has influenced my day-to-day activities and long-term planning has been the unique characteristics of the ABE student population. The defining characteristic of ABE has been that it serves adult students, which is similar to higher education; however, ABE students tend to have additional challenges to being successful students. The intent of this capstone project was to create professional development materials that explained how best to provide a consistent learning environment for all ABE students to be successful by exploring implementation of UDL across an entire ABE site. The materials addressed the question, *How can UDL be used to increase equity and access at an ABE site?*

In this chapter, I described the professional development materials in more detail. I gave an overview of the project as well as the basic theoretical framework used to devise this project. I clarified the project and further rationale for why I chose this goal. Additionally, I outlined the research that supports the project concepts and the intended audience.

The framework of UDL works for the ABE population per McGinty (2018). ABE tends to serve learners with diagnosed and undiagnosed learning disabilities, ELL populations, students from diverse cultural backgrounds, and learners who have been unsuccessful in traditional educational settings. Within the US, the federal government has recognized UDL is a key component of adult learners' success (CAST, 2018).

Overview of the Project

This professional development project was designed to give ABE teachers tools for implementing UDL that can be used in various classroom settings, regardless of course level or area of study, so that there can be consistency across all classes at an ABE site. This professional development training created consistency so all staff were in the same mindset about their approach to classroom learning. Although UDL can be implemented by individual teachers or individual classes, research suggests that it has a greater impact when it becomes part of a culture (Jimenez et al, 2007).

Because the student population is composed of adult learners, the curriculum was built using andragogy theory. Additionally, because the teachers were also adults, the professional development materials were created utilizing andragogy theory. Emphasis will be placed on relating materials to concepts already established at other training on diversity, equity, and inclusion as well.

UDL has shifted toward adult learners in more recent years (Black et al, 2015; CAST, 2018). However, it may still be a relatively newer concept for most of the teaching staff. Because of this, special attention was given to show how concepts of UDL were alreadying being used in the classroom without being labeled as UDL. For instance, showing videos with closed captioning is a concept within UDL; however, the average teacher might not have labeled it as UDL.

One of the foreseeable challenges with implementing UDL across a site has been the ever changing student population. At many ABE sites, students have joined classes at any point in the course, which means teachers cannot necessarily adapt the curriculum once they get to know the students. One of the hallmark characteristics of UDL has been

anticipating learners' needs proactively so that curriculum and lessons take into consideration any accommodations or modifications. With that said, teachers would need to design their curriculum as though various kinds of students may be in their classrooms even if they are not. UDL has argued that these kinds of modifications potentially can benefit everyone, not just those that needed accommodations or other adjustments.

With the assistance of the Program Manager for the initial site, specific UDL components would be decided upon as minimum requirements for each teacher to implement into their classrooms to qualify as meeting the threshold for UDL compliance. For each component of UDL, training materials were created to include tips and tricks, effective strategies for implementation, additional resources, etc. The concepts were general enough that they can be used across subject areas and within the teacher's comfort levels. The initial 3 hour professional development training took place in Summer 2023 with continued follow up at further professional development dates.

Training options for UDL

Training already existed on how to implement UDL for individual classrooms. However, those same concepts were used to build materials for UDL to be used across an entire site. The IRIS Center, located at Vanderbilt University, provides resources and services to educational programs around the world who want to add UDL to their curriculum framework. The IRIS training explains the UDL principles, provides examples of how to overcome barriers, and models the UDL principles with embedded videos, closed captioning, and audio (Courey et al, 2013).

The study by Courey et al. (2013) suggested that a three hour training was effective to teach about the UDL principles which encouraged teachers to incorporate the

principles into their lessons. However, the study followed up on implementation after the training. Many of the UDL concepts included in lesson plans did not actually take place when reflecting on their use of UDL. The study concluded that teachers need more practice in building lessons with UDL. Based on the knowledge from that study, a three hour initial training was planned, along with periodic check-in sessions where participants can share successes and challenges, as well as verification that UDL is part of the curriculum.

Context Setting

The ABE site where the professional development took place is located in Southeast Minnesota, and the site is attached to a public school district. The current student population is approximately 600 students, accounting for in-person and online learners. Some of the students live outside of the school district boundaries; however, they still live within SE Minnesota.

Within the student population, 42 languages were spoken, with 61 countries represented. Of the nearly 600 students, more than half were ELL; the remaining students were seeking reading, math, and other skills toward a GED completion, career or college training. The majority of the student population was female (70%) and between the ages of 19 - 44 (75%). Additionally, approximately half of the students have less than a high school diploma. About 50% of the students were employed; however, this does not take into account students who were underemployed but still working. The demographics makeup of this site was similar to other ABE sites across Minnesota.

Participants

The participants in the professional development were the teaching staff at the ABE site described above. Within the current staff of 18, over 75% of the staff was female, and nearly all staff was white (94%). Two-thirds of the staff have more than three years of teaching experience. All but three of the staff have a K-12 teaching license, and of the three remaining, two of them have an ABE teaching credential. Although initially intended for the participants above, the materials will be available to other educators to replicate at their site. Ideally, the materials will be presented at a future Minnesota ABE statewide conference so other sites can implement the same concepts.

At this time, the participants have limited exposure to the concepts of UDL. A few have attended training related to UDL and some are using concepts of UDL in their classrooms. However, the vast majority do not consider themselves to be using UDL at this time.

Assessment

Assessment on the effectiveness of UDL being implemented across the ABE site was measured by students as well as the teachers. Effectiveness for students was determined by an increase in the National Reporting System (NRS) data on educational function levels. The NRS involved data specifications, data collection methodologies, and reporting requirements to meet the federal guidelines of the federal Office of Career, Technical and Adult Education (OCTAE) and compliance with requirements for WIOA (MNABE, 2022). This data has already been collected at ABE sites using standardized exams such as Comprehensive Adult Student Assessment System (CASAS) and Test of

Adult Basic Education (TABE). Level gains were determined utilizing a NRS Functioning Levels Correspondence Chart.

Assessment by teachers was done through a Likert-scale survey where they can rate all aspects of the training, implementation, as well as their perspectives on success. Special focus was given toward teacher reflection on how much UDL was used within the classroom on a daily basis beyond the first few months. Studies have shown that although there was great enthusiasm for UDL after professional development training, the likelihood of its full implementation was not as great (Courey et al, 2013),

Summary

Professional development materials were created for ABE teachers at one site to be able to implement UDL into all classes regardless of subject materials or course level. The materials trained teachers how to incorporate the UDL framework utilizing predetermined parameters as a minimum. The intention behind the training was to make UDL become part of the culture of the ABE which in turn created greater benefits to students while alleviating the burden of various accommodations from teachers. The professional development training took place in Summer 2023 at an initial site in Southeast Minnesota. In the final chapter, the conclusions made about this project will be provided as well as reflection on the process for completion.

CHAPTER FOUR

Reflection and Conclusion

Introduction

The intent of this capstone project was to create professional development materials that explained how best to provide a consistent learning environment for all Adult Basic Education (ABE) students to be successful by exploring implementation of UDL across an entire ABE site. The materials addressed the question, *How can UDL be used to increase equity and access at an ABE site?*

In this chapter, I reflected upon the professional development materials I created. I gave an overview of the project as well as the literature used to devise this project. I showcased major learnings and connections I gained by creating these materials. Additionally, I discussed future implications for research, projects, and my profession.

Overview of the Project

This professional development project was designed to give ABE teachers tools for implementing UDL that can be used in various classroom settings, regardless of course level or area of study, so that there can be consistency across all classes at an ABE site. This professional development training created consistency so all staff can be in the same mindset about their approach to classroom learning. Although UDL can be implemented by individual teachers or individual classes, research suggests that it has a greater impact when it becomes part of a culture.

Prior to the professional development training, it was assumed that UDL was a relatively newer concept for most of the teaching staff. Because of this, special attention was given to show how concepts of UDL were already being used in the classroom

without being labeled as UDL. For instance, showing videos with closed captioning is a concept within UDL; however, the average teacher might not label it as UDL. To showcase these concepts, participants completed a pre-survey, and the data was reviewed as part of the training. Additionally, participants were asked to bring along a lesson plan; during the training, they highlighted concepts of UDL already built into it, and how they can add in additional UDL concepts.

As mentioned within the project, one of the foreseeable challenges with implementing UDL across a site is the everchanging student population. At many ABE sites, students join classes at any point in the course, which means teachers cannot necessarily adapt the curriculum once they get to know the students. One of the hallmark characteristics of UDL is anticipating learners' needs proactively so that curriculum and lessons take into consideration any accommodations or modifications. Because of that, teachers would need to design their curriculum anticipating various kinds of students, with the idea that modifications made with UDL potentially can benefit everyone, not just those that need accommodations or other adjustments.

Major Learnings

In completing this project, there have been many "ah-ha" moments that gave me reason to pause. It was empowering to see aspects of the project turn from the theoretical in my mind to the practical on paper, all while exploring my passion for the topic. Throughout the process, I was able to see through a participant's eyes and understand the concepts within the context of literature and application. While completing this process, I struggled with how to balance my passion for the topic with participants' interest in learning about it. Once I could connect the concepts of the professional development

topic to tangible takeaways for participants, it became more clear how others would be able to relate to the materials.

Beyond the theoretical implications of using UDL across an entire ABE site, I have come to realize how practical it can be to pair UDL with equity and access issues. Many professional development training sessions for educators focus on diversity, equity, and inclusion, but few related those to a curriculum shift. By focusing on UDL, educators can increase these efforts with small changes, many of which they are already doing.

The second major finding was how readily UDL can be used day to day in an ABE setting without it being named or recognized as UDL. The framework of UDL can be very broad, so it does encompass other concepts within its umbrella; however, there was power in recognizing the changes in curriculum to reflect UDL. By acknowledging shared aspects across all disciplines, it created further continuity for students.

The third major finding was how well UDL pairs with other adult learning theories like andragogy, transformational learning, and independent learning. The literature review suggested there was potential application for adult learners despite the majority of the research focusing on a K-12 setting (Black et al, 2015). As previously highlighted, UDL was mentioned as a concept for adult student success within the Higher Education Opportunity Act (HEOA) of 2008; this was the first time that UDL was included in federal legislation (CAST, 2018). HEOA specifically outlined ways that UDL should be part of teacher education and training for post-secondary instruction (CAST, 2018).

Connections to the Literature Review

By connecting the professional development materials to the literature review, it was easier to gather rationale for why it is important to incorporate UDL into the curriculum. The population within ABE was clearly a demographic that would benefit from many of the concepts of UDL as the research shows. Additionally, when there was more focus on issues related to equity and access, UDL helped bridge the gap by utilizing already familiar concepts within ABE.

Learners within ABE tend to be students learning English, students with multicultural backgrounds, and students with varied abilities; all of these populations benefit from UDL (Black et al, 2015). Additionally, ABE tends to serve students with learning disabilities; in fact, ABE teachers are more likely to teach students with a learning disability compared to other learning environments (Ryan & Rice, 1993). The core belief of UDL is that by designing for diverse learners and their barriers, the results will be a better learning outcome for all learners (Coyne et al, 2012; Jimenez et al, 2007).

The marginalized populations within ABE, such as students with disabilities, lower socioeconomic status, language barriers, and other non-mainstream populations, already struggled more in a traditional education setting; it was recognized that traditional curricula and teaching methods cannot improve all challenges (Copeland et al, 2019). However, shifting toward UDL can enable adult educators to improve both equity and access. Meeting the needs of the marginalized can also meet the needs of the middle, recognizing the intersectionality of those with multiple disadvantages.

Implications

As teachers, we are always looking for ways to maximize our limited classroom time and resources to have the greatest impact on student learning. Utilizing UDL to create consistency while improving equity and access has the potential to do that with ABE.

Data collection would be necessary to gauge the effectiveness of UDL on a site. Success would be shown through measurements of level gains through the National Reporting System (NRS) standardized test like CASAS and TABE. However, other factors may also impact level gains; therefore, it was important to consider other factors as well. If significant progress was made and teaching staff have utilized UDL, there was potential correlation between the two.

Future Opportunities

The professional development materials were utilized at a training in Summer 2023 at a site in Southeast Minnesota where I work. Upon completion of the training, I intended to present the findings at a future conference for professionals within Minnesota ABE. The hope would be that the professional development may be replicated at other sites. Additionally, the UDL framework could become intertwined within the culture of ABE as another tool to increase equity and access.

Benefits to the Profession

Over the last few years, implementation of technology into educational settings has shifted to a necessity. With that in mind, focusing on UDL meant also focusing on technology. By integrating technology tools like those on an iPad, it potentially can benefit all students without knowing who can benefit from them.

Additionally, there could be benefits to new staff if there was a curriculum in place across all subject areas that can be adapted and easily understood. From my experience, there were many resources available to teaching staff, but until you understand the culture and curriculum, it was hard to grasp some concepts and make a large impact on students.

Summary

As teachers, we need to be intentional about all aspects of our classrooms. We need to create a welcoming environment, curriculum and content that optimize learning for all students, while meeting state standards. This can be a balancing act that can take a great deal of planning and thoughtful consideration. Teaching staff need to look for ways to minimize barriers to learning while responding to an ever-changing student population. However, UDL provides a framework to make all of that possible. That is why adapting it as part of a culture for ABE students can make such a difference for students and teachers. The benefits are evident, and this project addressed the question, *How can UDL be used to increase equity and access at an ABE site?*

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