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The Principles of Universal Design for Learning
implemented in a non-profit organization: The Discovery Center.

Rose Albert

PIM 75

Course-linked Capstone: Training and Design for Experiential Training

A Capstone Paper submitted in partial fulfillment of the requirements for a Master of Arts in
Intercultural Service, Leadership and Management at the SIT Graduate Institute

Brattleboro, Vermont, USA

Advisor: Ryland White

May 2017

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Student Name: Rose Albert

Date: May 2017

RECOGNITION

“One becomes part of a community not because she wanted it but rather because the community approved of her”. Rose Albert

Thank you, God, for this community. This final capstone could not be possible without my community. My gratitude goes to my advisor Ryland White for her patience with me and illustrating firsthand the learning cycles model discussed in this document. During this entire capstone journey, her door was always open which made communicating with her very easy and agreeable. Despite her preferred style, she navigated through Kolb’s cycle efficiently and teased out the silenced woman within and gave me the confidence to complete this work. Much thanks go to my support system: my friends and library partners, Team work makes the dream work folks, my TDC supporters, my cluster and my editors. Bigger thanks to the highest above God for his strength and courage. Leaving the best for last, my parents; words cannot express my gratitude toward you- Mille fois, Merci (Thanks a million). This degree is dedicated to my parents.

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ABSTRACT

This capstone focuses on the implementation of Universal Design for Learning within The Discovery Center—a non-profit organization that provides educational programs for children in Connecticut. The intention of this capstone project is to raise awareness and share introductory knowledge around Universal Design for Learning (UDL). Universal Design for Learning is a framework that relays clear information for educators and people in general to mirror into their curricula to increase learning for multiple individuals (Rose, 2009). This paper proposes the adaptation of UDL into The Discovery Center (TDC) curriculum to increase access to students with different learning styles and abilities. TDC uses the inquiry-based learning in their curriculum and will be assessed throughout this paper to show its connections with the Universal Design for Learning framework. Inquiry-based learning helps shape leaders of tomorrow in thinking critically, questioning ideologies and embracing their own ideas ("Inquiry-Based Learning: Developing Student-Driven Questions," 2015). Therefore, this paper will aim to show the symbiosis between inquiry-based learning and the Universal Design for Learning Principles: multiple means of representation, multiple means of action and expression, and multiple means of engagement. The goal is to create a workshop for the teachers and facilitators at TDC to train them on UDL Principles. This paper can also be examined and readjusted to fit any organization that strives to become knowledgeable in the Principles of Universal Design for Learning (UDL) and looks for opportunities to increase program access.

Rewinding the clock and receiving a glimpse of the past

Most of my childhood centered on the ideology that everyone was the same. I knew that everyone was unique in the eyes of God but never thought that the status quo defined what was “normal”. Born and raised in Port-au-Prince, Haiti, my life would be considered a sheltered existence: most people looked like me (dark skin), spoke like me (French) and were able-bodied. It was not until my arrival to the United States of America the “melting pot”, that my experience brought me in contact with various groups of people. Of all the diverse people, people with disabilities made the most significant impression.

Most people living in the world today already experience some type of impairment in their lifetime. The United Nations stated that “approximately 10 percent of the world’s population or 650 million people live with a disability and constitute the world’s largest minority” (Blumenfeld et al., 2013, p. 461). Strangely enough, throughout my childhood, the idea of not being able, or being a person with a disability ever occurred, therefore it was hard for me to process even as I matured. Regardless, the perception of someone in a wheelchair for me was what it meant to be a person with a disability. Along with that, perceived notions of this person being impoverished and begging was also present. Blumenfeld et al. (2013) wrote “disabilities are wide-ranging and impacts the lives of people worldwide” (p.461). Being in the United States (U.S.), differences were abundant and the realization was made apparent that a person with a disability could be more than being in a wheelchair. A person with a disability could include an array of possibilities. Since then, deepening my understanding was of vital importance.

Processing this chapter in my life, my attitude towards the word “disability” was connected to my limited exposure growing up. My first personal experience with a person with a disability, was at my grandmother’s house. I spent every summer at my paternal grandmother’s house. It became a tradition for my family, and a space where the children of my immediate family, including myself interacted the most with people outside of school and church. That is what made our summers joyful. We did activities that we were unable to do at home. In my grandmother’s neighborhood, we had permission to intermingle with certain children. Only those she felt comfortable with their families. One of my grandmother’s neighbors was a masseuse. She became my masseuse and visiting her became a regular occurrence. Sometimes the opportunity to play with her child was also permitted.

One day, my grandmother and I had to make an emergency visit. Upon our early arrival, the masseuse was preparing her child for school. That same day, there was another girl sitting in a room. She was another child living in the house yet for some reason, we had never met. Attempts were made to communicate with her, though all were unsuccessful. In the intervening time, the mother came rapidly, shouting that the girl could not talk. Then she locked her daughter in the room and threw her a plate of food. Curious by the situation, asking the masseuse questions felt like a necessity. Unfortunately, my questions were only responded with silence. My grandmother reprimanded me and apologized to her neighbor.

Walking back to her house, my grandmother told me that the child in the room is sick and not allowed to be in society. She called her “san-zorey” in Creole which literally means “without ears,” meaning deaf. This interaction was not mentioned again and seeking to understand it did not cross my mind until recently. Upon reflection, ample questions arose: why did the child not respond to me? Why did the mother inform me that she could not talk? Why

was that child deemed unworthy to be in society? Why were the child's needs not met? Why was she locked in a room? Those questions remained unanswered.

The journey of a trainer

Political repression in Haiti was one of the reasons that my siblings and I immigrated to the United States. My parents felt that sending us away during this time was safer for us. "To ease the transition from leaving one's country, most migrants [immigrants] gravitate to a location like the one they left behind" (Altbach, 2004, p.52). My experience was different. My parents did not want to worry about us hence, they decided to choose an unknown location to my community. Rhode Island, the smallest state in the U.S. is where my parents believed would be a safe place.

Leaving Haiti, most people warned my parents of the life in the United States. People feared that we, the children, would end up in bad activities with an uncertain future due to the lack of immediate supervision. Despite all these concerns, my parents took the chance and fulfilled their parental duty by teaching me from a distance. This helped pave the way for my siblings.

Understanding "disability"

Upon arrival in the U.S., I was misdiagnosed with a learning disability. Honestly, at first, the feelings of shame arose when people stated and made my language barrier synonymous with a disability. My understanding of this misdiagnosis was not clearly understood and feelings of rejection, humiliation and contempt for this educational system were palpable to others. As mentioned before, when I heard the word "disability", the first picture that came to mind was of someone in a wheelchair. The stigma associated with the word pushed me to stay distant when someone told me that I was a person with a disability. Feeling pushed away with that word was

akin to rejection. Assessing my experience, I landed on the extreme importance that language carries. As someone who did not have a good command of the English language, someone else had the power to control my future. The term “disability” was only understood by me how it was negatively stigmatized. Unfortunately, because I didn’t have the power over my future, nor the power of how I was perceived, all one could do at the time was internalize the label.

“The Americans with Disabilities Act (ADA, 1990, amended 2008) considers a person to have a disability if she or he has a significant impairment that interferes with a major life activity, such as walking, seeing, hearing, learning, speaking, breathing, standing, lifting, or caring for one’s self” (Blumenfeld et al., 2013, p. 461). At first, my language barrier prevented full performance and interfered with activities but my engagement improved once I learned English.

My language barrier is an identity that remains with me in the United States. French as my native tongue proved difficult for me as an immigrant. To succeed, speaking English fluently was beyond important. It was vital to my success and one could argue it was necessary for my well-being in the United States. In 2005, I traveled to the U.S. not knowing a word of English and was pressured to learn this new language. For months, articulating clearly and conversing with people proved to be an arduous task. Carrying this impairment and finding it difficult to articulate my thoughts when communicating with others remained true. Through all the lessons and work that was done to learn English, there were still times the words evaporated at crucial points, when they were needed the most. Due to my language barrier and my immigration status, people had preconceived ideas about my identity and abilities.

Moving to Rhode Island (RI) was very difficult but, luckily for us, as we moved, we found a small Haitian community and stayed connected to the culture, the language and life back

home. In RI, we also met a family who my parents knew from the past. There, a friendship was born with a fellow Haitian; she had the same culture but was very different from me. The first encounter was memorable, hearing people say that she had a disability incited my curiosity. Understanding her experience with this label felt important since her disability was not apparent.

During that time, my only knowledge of disability was based on my experience. People labeled me as a person with a disability due to my language barrier and engaging in the process of decoding that for myself was beneficial. Meanwhile, my new friend (previously mentioned above) had a hearing disability. Struck with confusion at this diagnosis, questions around her disabled status fluttered in my mind and eventually were articulated to her, because she was not in a wheelchair. For this writer, being in a wheelchair was synonymous with having a disability. After hearing her answers, remembered hearing the stereotypes and realized my role as a bystander. My participation in the problematic rhetoric was through laughing or being silent. The discrimination she received for her hearing disability came from both U.S. American and Haitian people. Therefore, examining my life, I felt ashamed that perpetuation of these stereotypes continued to exist in my presence because of my role. This discriminatory language and not speaking up against the injustice made me feel disgraceful and lacking integrity. Silence equals consent, and laughing encouraged the behavior.

As a person who immigrated to the U.S., my experience helped me understand how it feels to be mistreated in society and my attitude needed to change towards my friend. For instance; my awareness on the topic encouraged me to no longer use the term “disabled people” in my language repertoire but to instead say: a person with a disability. Reflecting on terminology, I wonder if my friend identifies as a person with a disability. Since I met her, people in the community labeled her as a person with a hearing disability, including her family.

Never saw her retaliate or correct anyone, therefore, it was assumed that was her preferred way to identify.

In her article, Liza Mundy (2002) established that, since the 1980s, deaf community members spread the idea that deafness is not a medical disability but, rather, a cultural identity. Written with a capital D, Deaf people identify themselves with the sophisticated language of American Sign Language (ASL) that enables them to fully communicate. In writing this paper, the uncertain feeling about how my friend views herself surfaced and the inquiries on how she identifies began: deaf (medical disability) or Deaf (cultural identity).

Moving forward in life, I always wondered about this minority community living within my culture that I've been oblivious to most of my life. Therefore, in search of understanding why my culture considers people with disabilities as taboo to society, I found myself circulating in new spaces. Determined to overcome the barriers, I sought to improve my skills and learn from this community. It all started with learning American Sign Language (ASL) which my friend taught me. Through both our struggles, the fight for inclusion became a fight we both took part in.

First, I began to take classes and became very involved in learning about "disability". During undergraduate studies, I took two classes on ASL to sharpen my skills, widen my horizon and meet new people. One day, my professor introduced this term in class that was not fully comprehensible to me: Universal Design (UD). The feeling associated with learning this new term, the ideology behind it and the aspirations were incredible. I wished for a world that fully implemented the concept of Universal Design. I also remember instantly shutting down the idea, thinking about how difficult and expensive it would be to put UD into application. It became an ideology rather than a reality. However, after participating in an introductory course on

Universal Design and Assistive Technology through a nonprofit organization call Abroad With Disabilities (AWD). AWD demonstrated that Universal Design was attainable in practice.

According to Rusche & Jason (2011) “critical self-reflection not only improves students’ critical thinking skills but also helps students develop self-knowledge” (p. 339). This writer experienced major difficulties with the reflective practice. Born and raised in Haiti, the education system was very traditional. Self-reflection was not very encouraged in the classroom and had to absorb this mode of learning later in life. Reflecting on my journey, this non-credit course with AWD contributed tremendously to my self-knowledge, helped a better understanding of UD as a framework, and introduced me to Universal Design for Learning (UDL).

Introduction

Prior to my research, it was a struggle to understand the difference between Universal Design and Universal Design for Learning. Somehow, UD and UDL became interchangeable until further learning proved otherwise. This specific course with AWD demonstrated a clear path of both frameworks. This exemplified sample is around UDL. During school training at The Discovery Center (TDC), facilitators usually establish norms with a set of pictures (see Appendix A). Each image is illustrated, described and discussed with the students prior to the first activity. This practice at TDC shed light on the first principle; multiple means of representation by having the elements accessible to a diverse population. The norms were presented in different forms making it beneficial and attainable for most students.

At the heart of Experiential Learning and studied in Training Design for Experiential Learning (TDEL), is the combination of personal experience and theory that contributes to

learning. People come together from diverse backgrounds, share their personal knowledge to enrich the course, learn about the theories and make them applicable for the future. People are encouraged to engage with the learning according to their preference. This example showcases the second principle of UDL; multiple means of action and expression. As the core value of UDL, that technique encompasses the requirement of diverse learners. “The Discovery Center’s” pedagogical approach through inquiry based learning will explore the third principle of UDL; multiple means of engagement. The purpose of this paper is to demonstrate the connection between inquiry-based learning and Universal Design for Learning. Using TDC as an example, this paper aims to showcase how The Discovery Center can benefit from using the Principles of Universal Design for Learning within their curricula.

The layout of the paper starts by explaining The Discovery Center; its history and mission along with inquiry-based learning; a technique used at the organization. An overview of Universal Design and Universal Design for Learning is established to ensure the difference for the reader. A trainer’s note follows to share educational outcome and facilitation skills. To continue, as a learning environment, the writer worked on detailing this non-profit organization (TDC) outcome in working on a new curriculum. This paper expresses the difference between diversity and inclusion and how TDC strives to work with both in their curricula. The plan of action examined TDC under a microscope. The goal is to create a workshop (10 hours maximum) within staff training with its aim at implementing the Principles of Universal Design for Learning. The conclusion section of this paper will recap the major idea of this capstone and lead to a detail agenda of the workshop. During staff training the vision is to incorporate an UDL workshop to train both facilitators and teachers on this framework. This writer’s hope is that this information serve as resources for TDC and integrated in next year’s camp session.

The Discovery Center and Inquiry-Based Learning

The Discovery Center (TDC) is a non-profit organization that facilitates trainings around diversity and inclusion to empower children in Connecticut through an interactive way of learning within week-long camps. TDC has worked with public and charter schools in the Hartford and greater Hartford area every year since its incorporation as a non-profit in 2002 ("Mission & History," n.d.). TDC offers camps during the fall that focus on Team Building, Diversity Training, Science, Technology, Engineering and Mathematics (STEM) awareness, and more. The motto of TDC is *"a classroom without walls for a future without prejudice"* ("Mission & History," n.d.).

TDC's work is unique and separates itself from other programs or camps whose missions are to educate people about racism, prejudice, and stereotypes. TDC's uniqueness revolves on the use of inquiry based learning approach planted in the program that complements its mission. "The Discovery Center works in partnership with youth, families, schools and communities to facilitate nurturing spaces where people can understand and challenge systemic racism and oppression. In all our programs, we practice critical questioning, cultivate connection and inspire action" ("Mission & History," n.d.). TDC runs three types of programs: diversity activities, academic curricula, and team building activities.

For instance, every week a group of fifth and sixth graders from two different schools attend TDC's camp to learn about social constructs and issues prevalent in their daily lives. The camp utilizes an inquiry-based technique that allows for a safe, nurturing and diverse place for the students to come together.

Inquiry-based learning, rather than presenting a set of facts, uses student inquiries, questions, interests, and curiosities to drive learning. This level of student involvement makes learning more relevant, encouraging students to develop their own agency and critical thinking skills ("Inquiry-Based Learning: Developing Student-Driven Questions," 2015)

Inquiry-based learning uses students' interests at the core of education. In doing so, the student is encouraged to have questions on topics that passionate them, and their curiosity drives learning. Inquiry-based methods makes the learning experience informal and rewarding. Inquiry-based learning positions the ownership of learning on the student with assistance from the facilitator who helps create the space for the students. The facilitator probes an essential question and then opens the conversation to the students. "Inquiry practices often involve more student-centered activities where students interact intensively with materials and with other students during investigations" (Chew-Leng et al., 2009, p.18). However, certain students are not accustomed to asking each other questions or listening to each other; instead they are more familiar with the traditional process of learning.

Traditional education often expresses to students this process of learning. The teacher is knowledgeable and instills the knowledge into the students. Educator Paulo Freire referred to traditional learning as the "banking model", supporting the dominant ideology that students are open repositories needed to be filled to whatever knowledge the teacher deemed important and worthy to deposit (Breunig, 2011). This internalized view makes it difficult to perform inquiry-based technique when teaching. Depending on the group of students, it became very challenging to break the traditional learning norm at The Discovery Center. Two scenarios often occurred during camp when using the inquiry-based technique.

One scenario would have the group very shy and intimidated to share, question or discuss topics with each other. The facilitator question posing required for some creativity and asked that the facilitator intervene often to pull out ideas from the group. The questions needed to be open ended. Some examples of follow up questions that one may ask would be: “what led you to think that?” or “how does that make you feel?” Those types of questions were important not just to increase the child’s own awareness and self-knowledge, but these self-explorative questions benefitted the group. Oftentimes children would echo similar feelings or express what led them to that idea. The facilitator needed to have basic knowledge of the group to know which method would work best with the students. This was not where our process of openness began. It started with our community agreements.

At the beginning of each week, each group had to create a “community agreement”. The purpose of the “community agreement” was to create a space where everyone felt comfortable sharing and expressing themselves fully without the fear of judgement. The norms were set by the students where they represented the outcome they wanted for the week. The community agreement became a consensus guideline for the group to follow throughout camp. If a student geared away from those norms, usually returning to the agreements resulted the dispute. The students from my group signed their names under the agreements to show commitment and were then held to a standard of accountability for their behaviors throughout camp. One of the activities that each group completed through their stay at camp was the climbing tower. When the students supported one another during this activity, it opened doors for them to not only climb the tower but also made them feel supported and more willing to share. The more comfortable the group was with one another, the easier it was for them to have conversations.

On the other hand, having a connected group either went extremely well or extremely poorly. One week, a group of students became connected in a brief period. When preparing activities for them, as a facilitator, the activities required imagination. The difficulties with that group were the quick evolution of conversation which needed my upmost attention and close monitoring. The students knew each other very well and were comfortable challenging one other and had great conversations. It became also risky because most of the students did not take the time to be cautious when speaking. The impact of their words when communicating caused greater damage within the group. In conversations, one additional problem occurred where the extroverted students dominated dialogues leaving the introverts excluded. As a group, we often needed to come back to the community agreements to debrief the students' actions. Unfortunately, for that specific group, the situation kept repeating itself. As a facilitator, my voice was often unheard because the students chose simply to not listen to each other.

Adapting to the inquiry-based method became naturally easy for some groups and for others very challenging. Originally, the implementation of inquiry-based learning is difficult. Though with perseverance and confidence in the method it can eventually lead to satisfactory results. The inquiry-based method is not often used in schools and using it as a tool to educate students requires time and patience. Through experience at TDC, I know that the Universal Design for Learning Principle of multiple means of engagement can be applied to support inquiry-based learning.

Presenter Todd Rose talks about the average student. He mentions that the one-size-fits-all model is created for the "average" student who does not exist. He adds that both "gifted" students and "special" students are suffering from that mentality of an "average" student ("The Myth of Average: Todd Rose at TEDxSonomaCounty," 2013). As a child in Haiti, the

recollection of the endless nights of studying I had to overcome is ingrained in my memory. My parents' method of testing school materials involved the verbatim memorization of the lesson given by the teacher. Personally, geography is not my strong subject and unpacking the following unpleasant past experience could be a factor.

My first geography class was in fourth grade which ended painfully. The first lesson in the book asked "Qu'est ce que c'est la géographie?" "What is geography?" and the teacher assigned us to answer that question. Raised in a culture where repetition was a key to learning, I was accustomed to it but for some reason had a hard time memorizing this specific lesson. At the time, it was the punishment of all punishments - my parents kept me up all night long (while they went to sleep) studying the lesson and testing me periodically in between sleep. If there was any hesitation reciting the lesson, my parents would automatically ask to take the book and inform me that more studying was necessary. That night was one of the longest and most painful nights of my childhood. Until successful repetition of what was learned, sleep was impossible.

Over time, my mother felt guilty. She expressed to me that this specific lesson was disagreeable for her during her childhood and that she had a chant of that specific lesson which helped her with the memorization. Extremely tired, I managed to learn the chant and was able to recite the lesson with no hesitation and made it to bed before the morning rooster called. The traditional education system is also common in Haiti where students are assessed by their test scores. From that ideology of learning, it became very challenging to become accustomed to different forms of learning measures. It felt unnatural the first time a teacher asked me to express or share an opinion in class. The nervousness within me keeps me reluctant when asked to share my thought in class. Nonetheless, my perspective on education changed drastically after realizing that memorization was not the only mode of learning.

The Discovery Center believes that this long-lasting tradition of banking education should be challenged. They believe that students are not one dimensional and vary in strengths and weaknesses in many dimensions of learning ("The Myth of Average: Todd Rose at TEDxSonomaCounty," 2013). For instance, to ensure one's success, the teacher must be aware of the students and cater to each individual student's needs as they see fit. This non-profit believes that no matter the learner's age, they can critically think and debate for themselves. Therefore, this group of incredible people work together every day with fifth and sixth graders to help them organically learn from one another and teach each other.

TDC utilizes inquiry-based learning to embrace the uniqueness of the individual and allow for people to learn from one another. At TDC, the structure of the diversity activities passed along certain concepts and words to the students allowing them to think critically. They express their views on the -isms of the world and ideas of the injustices that people encounter. One of the activities we worked on with the sixth graders was called Word Definition. Words such as stereotype, prejudice, discrimination, and racism are not only explained, but placed in context through real life examples. The difference between each word and the illustrations given for that word aided in helping the students understand more meaningful ways other than theories. These enabled students to recognize and comprehend the words as if they were seen or heard in their presence. The goal was to have those words introduced to the students that's never seen them and a different or renewal of definition for the students familiar with those words. At the end of the activities, students are mostly able to point any of the terms if they were to be manifested in their presence.

One other term that is taught to student is diversity. As a fundamental part of the experience at TDC, the students could understand beyond articulation of theory, the meaning of

diversity. They easily recognized and understood the meaning of diversity by looking around at their peers and listening to a variety of different stories. Diversity, like the other words that they learned, became something they recognized through practice much more than theory.

One self-observation learned from working at TDC is that old habits die hard. At the age of sixteen, my work revolved around social justice, presenting and facilitating trainings for youth (my peers) around prejudice, stereotype, discrimination and racism. It was not until TDC that this confession was made. The grasp of understanding the concepts that I've worked around for most of my life transpired during my practicum. Prior to TDC, there were hardships and difficulties explaining the difference between prejudice and discrimination. The definition at hand was crucial for an effective explanation of those terms to others without hesitations. It was a constant challenge. Thus, at TDC, the repetition of the lesson for each group allowed me to memorize each definition. This time, the memorization was not in vain as I carefully took time to comprehend what I was learning. The observations facilitating these activities allowed for the recognition that memorization without understanding is dangerous. It is dangerous because in my childhood, regurgitating information verbatim on what was learned in class was an achievement. Though days later was unable to remember the lesson. Studying for the exams was not for my self-knowledge but solely for doing well by someone else's standards. Inquiry-based learning alone opened endless opportunities for students; they not only took the time to be introduced to these new terms, they challenged themselves and each other until clear understanding of the terms. Along with inquiry-based learning, TDC provided different means of engagement with the content through mini lectures (writing and listening), games, dialogues, presentations and even surveys, thus focusing on various learning characteristics.

At TDC, the definition of diversity is recognizing, understanding and appreciating differences. For me, part of a successful week was when a group of my students remembered the definition of diversity and illustrated it for me in different forms; chants, lyrics, examples or skits. Naming a few, diversity is not only limited to race and gender but religion, age, education and ability. The challenge with that thinking was to constantly remind myself that memorization is not the sole way to success. My perspective on effective learning needed altering and believing in the inquiry process was a major step. Then, it was not only that I was practicing it in life. The hardest step was understanding the great outcomes that inquiry based-learning produced. The inevitable surfaced; patience with myself, patience from my team and practice increased my performance in becoming a great asset for the team. The exposure of inquiry-based learning showed some parallels with a term already mentioned in this paper. Universal Design for Learning has many similarities with inquiry-based learning. Here is a brief background knowledge of its roots.

What is Universal Design?

Universal Design (UD) was first introduced in 1997 by architect Ronald Mace. He defined UD as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (Center of Universal Design 1997). Soon after, the staff at the Center for Applied Special Technology (CAST) adopted UD.

Johnson-Harris (2014) wrote: “the concept of Universal Design, which originated in the field of architecture, refers to products, structures, and procedures designed with all potential users in mind” (p.168). Universal Design breaks down barriers and focuses on the individual.

Oswald “Oz” Mondejar, Senior Vice President of Mission and Advocacy for Partners Continuing Care, Inc. (PCC) stated, “UD keeps thinking of the user at all times, how you want to welcome them, how you want to include them. UD is creative and thoughtful and beyond accessibility” (“Universal Design,” 2012). Universal Design was created to ease access to as many people as possible without singling out any individuals. There are 7 Principles to Universal Design.

1. Equitable use - the product is designed for all users to access equally
2. Flexibility - the product is made to accommodate a wide range of users
3. Simple and intuitive - the product is easy to understand to all users
4. Perceptible information - the product is communicated easily for all users
5. Tolerance of error - the product minimizes as many errors as possible
6. Low physical effect - the product requires minimum fatigue to users
7. Size and space for appropriate use - the product is accessible for all (Burgstahler, n.d.)

Here is an example to illustrate one of the Principles of UD. When someone quits an application on the computer, they are faced with a dialogue box that reads “Are you sure that you want to quit without saving?” The dialogue box allows them to either retract the error or confirm that the individual is sure about the step they’ve made. That is tolerance of error in application. Every time the computer is utilized, the realization now is how much UD Principles are connected to daily activities.

Ron Mace envisioned that the creation of accessible products will be made in advance to meet the needs of most people. One common example to illustrate Ron Mace’s vision is the idea of including ramps in buildings. “After the Americans with Disabilities Act (ADA) passed in

1990, it made a requirement that all public buildings be retrofitted with ramps, elevators, and wider doorways to provide access to users“ (Zhong, 2012, p.34). For example, a wide range of people use ramps when provided because they enable easier mobility. People using strollers, bicycles, wheelchairs, and carts utilize the ramps, making the buildings with ramps more inclusive. Further through my research, learning on Universal Design shed light to realize that UD paved the way for several more branches to be created. One of those frameworks, Universal Design for Learning (UDL) which is a focus point of this capstone.

What is Universal Design for Learning?

Mirroring the concept of Universal Design, researchers carried the idea to the field of education. Universal Design for Learning (UDL) was developed by Dr. David Rose, who states that learning differs depending on the individual and that learning is not linear. (Basham et al. 2010; Jim´enez, Graf, & Rose 2007; Meo 2008; CAST 2012, para. 1). One thing that remains constant through generations is schooling. Hence, the Principles of UDL provide learning materials and shift the traditional education narrative. UDL suggests that reading and learning happens on a broad scale that is set to fit a diverse range of students. Center for Applied Special Technology (CAST), a primary source on Universal Design for Learning, defines UDL as “a set of principles for curriculum development that gives all individuals equal opportunities to learn” (Basham et al. 2010; Jim´enez, Graf, & Rose 2007; Meo 2008; CAST 2012, para. 1).

UDL has three core Principles: 1) multiple means of representation, 2) multiple means of action and expression and 3) multiple means of engagement. Researcher Johnson-Harris (2014) found that “the importance of implementing multiple means of engagement is only relevant if multiple means of representation and multiple means of action and expression is acknowledged”

(p.170). The guidelines for the three Principles of UDL can be found at [The National Center on Universal Design for Learning](#)

Multiple means of representation enhance student's learning because they provide several ways of presenting the content. The multiple means of representation require that the content is presented with a variety of examples providing several formats for all learners, whether through audio, visual, or touch. "In reality no one type of representation will be optimal for all students, so providing options in representation which is the 'what' of learning is essential" (Brownell, 2012, p.82).

For example, putting closed captions when watching television not only helps a person with a hearing disability but also provides access for people with learning disabilities and reduces confusion when watching television with a chatty group of people. For another example, during The Discovery Center's (TDC) morning circle, the staff will have a quote of the day for the students. The quote presented in writing, caters to the visual learners and the quote is read out loud for the auditory learners. Once read, everyone is invited to think about the quote and determine what it means to them. Then some people share with the entire group how the quote of the day resonates. Multiple means of representation were in effect during morning circle.

Multiple means of action and expression allow students to showcase what they have learned creatively. "Multiple means of expression refer to the 'how' of learning, or how students express or demonstrate what they know according to their individual abilities" (Brownell, 2012, p. 82). The teacher does not dictate how the students should learn, but, rather, adapt to their students different learning styles. This principle does not work in a traditionally structured classroom setting because the learner cannot choose how they wish to interact in their environment and demonstrate their own understanding of the content.

At TDC, free time is scheduled in the curriculum. It is important to have a specific time where students interact with each other in doing something they like and demonstrate their understanding of the mission of the program. Facilitators present multiple opportunities to the students and, during that time, students are doing different things at the same time. The students express themselves either through talking to each other, asking follow-up questions about any topic that was presented to them during the day, or observing their environment and being engaged in different activities. The necessary space schedule permits multiple means of action and expression to manifest itself. The information is inaccessible if it does not engage all learners and to resolve this problem, the content must have clarity and be comprehensible across all types of learners.

Multiple means of engagement require that the learners be interested and fully engaged. The idea to successfully complete this principle is to have flexible teacher ready to provide support to students. Brownell (2012) informs that multiple means of engagement focuses on the “why” of learning and students differ in the way they become engaged and remain motivated. One of TDC’s diversity activities “Apples and Oranges” illustrates this principle. The lesson plan (see Appendix B) is designed for students to talk about apples and oranges as what we know them to be, which are fruits, as well as illustrate real life scenarios through metaphors. The activity engages student to think individually and collectively. The goal intentionally stimulates different learners and the procedure of the activity is set in different part sequenced to be completed according to the lesson plan. One of the objective of this diversity activity is to have student understand the meanings of the words exclusion and inclusion.

UDL ensures that, from the start, the curriculum is accessible to support most learners. “The Principles of Universal Design for Learning encompasses an effective approach to

classroom procedures, ensuring that instruction is designed to be accessible to all potential learners” (Johnson-Harris, 2014, p. 168). Generally, teachers encounter students from diverse backgrounds, interests and learning styles that they should account for when preparing for class.

A trainer’s insight: facilitation and education

As mentioned in the beginning of this paper, being clueless about the vast range of people that exist in this world, is an understatement. In Haiti, my privilege belonging to the majority group allowed me to circulate spaces where it was comfortable. Learning to not question authority as a child, there was no desire in knowing or learning otherwise. In completing this capstone, reflecting on the incident about my masseuse and her child conversation never occurred and this writer now feels an uneasiness within around the dialogue.

Hesitant because of the potential reaction of my grandmother and the community in Haiti, it felt better leaving it alone and no longer addressing it. The excuses were endless such as: I am no longer living in the country, the girl might have moved on and not wanting to be the one to open unwounded wounds or since my visitation home are limited, the thought of having my grandmother upset or the community was not a path this writer was ready to risk. My thinking even landed on the earthquake, its effect and not wanting to cause some misfortune just if...and so on and so forth. None of the reasoning’s were positive and now frustrated with that feeling, I’m realizing that my discomfort is due to my privilege. This writer needed to deconstruct this thinking from within prior to asking others to embark on this journey.

School for International Training

A facilitator is someone who guides conversations and makes it easy for a group to communicate with one another. At the age of sixteen, I participated in this summer camp which

carved my training path. I was unaware that I was a facilitator. Before I could name the work that I was doing, I was facilitating trainings on social justice issues. Chasing this path overtime led me to pursue of a Master's degree in Intercultural Service, Leadership, and Management (ISLM) at the School for International Training (SIT). It's a self-designed program where the opportunity to focus on training courses was presented, aligned with topics that mattered to me. SIT's experiential approach inspired me to narrow my concentration to marginalized communities and accessibility for every individual. I felt a renewed passion for the fight of inclusion for people with disabilities through the classes and experiences where I have introduced others to inclusive practices. SIT molded me and taught me the missing skills necessary to become a dynamic facilitator and sent me to complete my practicum. At the beginning, my skills in giving appropriate feedback and receiving feedback were minimal. After taking Training Design for Experiential Learning (TDEL), the skills provided within that class pushed me to practice my feedback skills. Upon completion of that course, I also gained the necessary skill in designing and facilitating a training.

The 4MAT learning cycle

In TDEL I learned the value of theory and practice and was introduced to Kolb's learning cycle and Bernice McCarthy's 4MAT learning model. Building on those models deepened my work at TDC as I kept implementing my academics in my professional life. Grounded in the technique of inquiry based-learning as well as experiential learning, the student performs best when learning is natural and when their individual learning needs are met. "The 4MAT cycle was first introduced in 1979 and depicts learning as a natural cycle that begins with one's experience, followed by reflection, conceptualization, action, and integration" (Moitinho, 2008, p.470). The learning styles are vital in understanding how one's receives information, processes

it and responds moving forward. McCarthy even talks about the cycle as a formula for educational growth for students and I can myself, attest to that. During my training course at SIT learning about the cycles were very challenging. Learning of the theories were necessary however I had a tough time understanding them. The arduous curriculum at TDC provided time for me to reflect on my experience at SIT and at the end of the practicum interpreted my learning within this capstone.

The 4MAT cycle illustrates four types of learners and identifies roles for both students and teachers. Presented in the table below, each quadrant describes students learning style and the recommendation on how teachers should appropriately approach each learner. Done in a rotation, another cycle restarts once the learner makes it through the fourth quadrant. The effectiveness of the 4MAT cycle relies on both the student and the teacher to know themselves and their preferred style and be able to navigate through all four quadrants periodically as they receive new information (Moitinho, 2008).

	Role of student	Role of teacher
First quadrant	New experience needs processing and learner utilize all senses.	Effective teaching connects student to the new material.
Second quadrant	New experience needs reflection and learner filter their knowledge within themselves. Experts are also vital.	Guide students as needed in terms of gathering information, classify and organize facts.

Third quadrant	New experience is practice, question and experimented to master the topic.	Provides a dynamic classroom atmosphere for student to problem solve. Teacher becomes a coach or a facilitator.
Fourth quadrant	New experience is adapted followed with the “what if” questions for growth.	Gives the opportunity to master what is learned and put in practice in their lives.

TDC is a learning environment which grows every day. In writing this capstone, I can demonstrate how willing this organization is to educate themselves (staff and administration) for a better future. Rusche (2011) states: “inquiry-based approach offers students the opportunity to examine their everyday lives and experiences” (p.340). The Discovery Center truly practices what they aim to teach to their young children. The program is examined frequently to ensure efficiency and authenticity.

After the season ended (Fall 2016), the co-directors prepared a day-long exit meeting for the staff. The day started with us working on the survey they created for us. The survey was divided into prompts that required us to share about the experience that we had during the season. Once completed, the group came together to talk about the suggestions that we had for the administration in preparation for next year. The shared information led TDC to work on its newest mission and vision (Appendix C). Through TDC’s interactive experience, students are engaged in learning valuable lessons on topics such as diversity, inclusion, empathy, class, climate and team work. TDC’s new plan encompasses seven values (Appendix D) that reflects

the social change that they envision for institutionalized equity in school systems ("Mission & History," n.d.).

A New Curriculum for The Discovery Center

The students that come to camp are from different socio-economic status, institutions and communities. To engage most students, the curriculum needs to consider four aspects: goals, methods, materials, and assessment.

Goals

Goals are a set of broad ideas identifying the knowledge one should have once the lesson is completed. They should be simple to comprehend and realistic. "Goals are established to focus the facilitator on the general objectives of the experience" (Pfeiffer & Company Library: Activities, 1994, p.157). Using UDL, the means of achieving that goal is subject to the students' means of action and expression. As a facilitator, the goal should be made flexible and allow space for students to create individual goals that meet the bigger requirement.

During TDC's camp, one expected outcome for all the groups is to complete the climbing tower. The tower has two sections labeled A (easy) and B (hard). As a rule, facilitators were only allowed to label the walls as A and B despite the ample questions students had trying to figure out which side was the easiest or the hardest. Part of the instructions were to ask that each student set a goal for themselves before proceeding to climb the tower. When debriefing this activity, it ended on a positive note because the students felt they met their goals. Even students who were afraid of the tower were highly encouraged to step outside of their comfort zone and partake in the experience. Mentioned above, the students supported each other tremendously during this activity. To ensure safety, each individual expressed how they would like support

manifested and the group followed the individual request to support in that way (silently, giving thumbs up, cheering, chanting or even clapping).

Methods

Johnson-Harris (2014) says that methods of instruction must challenge and support all learners equally and be varied and flexible. Using multiple means of engagement requires that the facilitator provides several ways of presentation for the materials. The methods used needs to work for all students which begs the question: how can TDC challenge each student individually at the same time? TDC runs one-week long periodical camps where introduction and building rapport happen quickly to ensure more time for the campers to familiarize themselves with the content and learn from each other. At TDC, not much time is spent on knowing each student's individual needs and the student best methods of instruction. The work that this non-profit organization is conveying is extremely important and can be more efficient if they are intentionally working on meeting the needs of each camper. The method for camp asked that each facilitator reads the curriculum and implements the lesson plan with each group. For certain groups, the methods were not challenging and certain facilitators didn't allow flexibility within their group. The recommendation is to use the UDL Principles to reach more students. The method chosen should incorporate different learning styles in mind to meet the needs of most students that attend camp.

Materials

The presentation of materials needs to be diverse at TDC. The main rule for materials in UDL demands that they be easily available and with uncomplicated use (Pfeiffer & Company Library: Activities, 1994). Most groups that come to TDC end the last day completing an art

project which is talked through and created by the students. The setup for this activity varies depending on the weather of the day, and the student energy and interest. The materials include blank paper, pencils, paint, mural pictures and illustrations of previous projects which provides a collection that is not necessarily reflective of the diversity of the learners. One group of my students were not thrilled by the arts had no alternative and was forced to engage in the last camp activity. The recommendation for an inclusive solution would be to take into consideration the student's needs and provide alternative activities and be flexible enough to accommodate.

Assessment

The last aspect to keep in mind when applying UDL is assessment. "Assessments should be planned so that learners can demonstrate their understanding of the material in multiple and flexible ways that maximize their strengths, interests, and preferences and minimize their weaknesses" (Johnson-Harris, 2014, p.170). The assessment process at camp happens very quickly and briefly on the last day prior to lunch. Most students completed their assessments in the cafeteria, with music playing and smelling the tempting odor of pizza for lunch. The setting provided for assessment at TDC is not inclusive to most learners. The recommendations would be to have assessments throughout camp manifested in different mode using all the senses and practicing the first principle of UDL; multiple means of representation.

Inclusion and Diversity in Learning

Inclusion is often seen as an interchangeable term with diversity, however, they are separate concepts. Researchers cease to agree and have mixed explanations for both words. The relationship between diversity and inclusion is complex and must be understood with precise descriptions. Barak (2015) proposed that "diversity is about belonging to groups that are

different than whatever is considered mainstream in society” (p. 84). Diversity appreciates differences from gender, race, age to even culture, education and other attributes. Diversity can be acknowledged in different forms; some are visible and others invisible.

Diversity primarily manifests through gender, race, sexuality, socio-economic background, physical and intellectual ability at TDC. When the students are put into their assigned groups, the differences and similarities are highlighted through the dialogical pedagogy at TDC. Students not only learn about differences through diversity, but additionally, students learn that there are many commonalities that they can identify with, and relate to. This is what makes diversity so important for learning at TDC and this writer would suggest that diversity should be encouraged in more places, especially in education.

Diversity highlights experiential learning because it recognizes each person and their experiential intelligence from where they are, and encourages them to share their knowledge. The simple input is that everyone can contribute and share and teach something different because diversity at TDC is sought to be appreciated, welcomed and understood. This is what makes diversity a necessary part of education.

Having diversity in education as well as a dialogical pedagogy, also engages and expands critical thinking skills. This happens because multiple perspectives are able to engage in discourse around any number of topics. When someone thinks about a topic in a separate way, in a manner that can be heard by everyone, then it allows for learning to take place in a different manner. Many students have not been privy to other points of view in traditional education therefore this process can be very profound and enlightening. This process would be akin to when an undergraduate student first reads “A People’s History” by Howard Zinn for the first time. Zinn, spoke from various counter-narratives that are often omitted in history lessons and

textbooks. Accessible in different forms, this book is available to the public to read and the reader then becomes more knowledgeable about U.S. history. The narrative is mostly of the oppressed, or the colonized that gets discarded from traditional education.

Fortunately, the beauty of diversity and my role as a facilitator consent to conversation of both the dominant and targeted voices. The conversations probe the students on why they think the way they do, which naturally dives into their experience due to an inquiry-based approach. Through probing and allowing space for all narratives and experiences to be welcomed and appreciated, different perspectives from more marginalized groups can flourish and be recognized. This is what helps create an environment where learning can be transformative. In traditional education, this probing process rarely occurs because the main objective is to teach students what to think, instead of teaching them how to think. The diversity at TDC allows engagement with other groups of people that students may have never encountered or talked to before, which then helped expand their thinking and awareness of other people who have experiences different from them.

It is often assumed that when we say diversity, we automatically mean inclusion. When the word inclusion is used, the narrative in people's minds quickly becomes inclusive equals putting special needs students in mainstream society. That description is limited and causes people to view inclusion more about disability rather than ensuring that no one is excluded. Therefore, taking from Katherine Runswick-Cole (2011) and the Centre for the Study of Inclusive Education (CSIE), inclusion means:

- Valuing all students and staff equally.

- Increasing the participation of students in, and reducing their exclusion from, the cultures, curricula and communities of local schools.
- Restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in the locality.
- Reducing barriers to learning and participation for all students, not only those with impairments or those who are categorized as ‘having special educational needs’.
- Learning from attempts to overcome barriers to the access and participation of students to make changes for the benefit of students more widely.
- Viewing the difference between students as resources to support learning, rather than as problems to be overcome.
- Acknowledging the right of students to an education in their locality.
- Improving schools for staff as well as for students.
- Emphasizing the role of schools in building community and developing values, as well as in increasing achievement.
- Fostering mutually sustaining relationships between schools and communities.
- Recognizing that inclusion in education is one aspect of inclusion in society. (CSIE, 2011). The Discovery Center utilizes fully inclusion in their curricula for a just and equitable world (“Mission & History," n.d.).

Most of us, when addressing a group, often say, “hey guys” as the common word to grab the attention of the group. It became the norm circulating and intergrated it as a custom. Until TDC, a true understanding of inclusion was nonexistent. During staff training, one of the

facilitators kept addressing the group using words such as: “people, y’all, everyone” and when asked why, they responded that it was more inclusive. When the word “guys” is used to address a group and some people identify differently it automatically excluding people and making it not inclusive. Rather the suggestion was to use neutral words. The facilitator added that addressing a group saying “people” for instance, lets everyone know that you see them for who they are and gives space for people to express how they self identify. That was a teachable moment that I now implement in my life.

Everyone is valuable and, at TDC, they work on helping students realize their value. The environment of camp is respectful and harmonious. In conversations, they practice the “CALL-IN” technique. For example, having a dialogue with someone who’s views are opposing. Most of the time, both parties cannot respectfully agree to disagree and learn from each other during such conversation. At TDC, the “CALL- IN” technique is often utilized during times of disagreement. When you “CALL IN” a person, you are inviting that person to share their ideas or elaborate on why a specific viewpoint is held by that person. This is different and more welcoming than “CALLING OUT” which is usually done when one person disagrees and then decides to tell them how wrong they are. In creating an inclusive space, keeping an open mind is vital. It is necessary to understand that everyone is different and at times, in conversations, you will have to respectfully agree to disagree. Practicing this skill as a facilitator was extremely challenging especially when talking about social justice. The dialogues between individuals needed to be respectfully heard and debated in a manner that added value to both parties point of view. It required active listening, patience and humility. That technique also added value to conversations and complemented the inquiry based-learning. Both students and facilitators or

even facilitators within themselves needed some reciprocity and opportunity to respectfully disagree.

How can education be inclusive to all students?

In making education inclusive to all students, inclusion needs to relate to the CSIE definition as it is broad and constitutes a range of methods for different individuals. Inclusion is more than people with disabilities only needing accommodation. Inclusion should be both a process and a goal. An inclusive space is made through a process where an individual strives to reach every day and recognizes that it will be a new experience designed to be adjusted and appropriate for each student. According to Barak (2015), there are two levels of inclusion: reactive and proactive. Due to feedback, reactive inclusion is when organizations recruit and employ a more diverse workforce. Meanwhile, a proactive inclusion suggest that organizations invest efforts in active diversity management aiming to enhance inclusion and an effective environment.

Inclusion supports the richness of diversity. The implementation of inclusion is rather difficult as it requires meeting the appropriate need of each student every time. Successful inclusion serves the individual case by case according to their needs (Immicke, 2016). The challenging aspect comes when inclusion demands that each student's strengths and areas of difficulty be considered when crafting a curriculum. This means the curriculum would need to be more individualized, which can be hard to implement in a room with diverse students.

As a Residential Counselor at TDC working confidently with the curriculum, the returning students (6th graders) often remembered some of the activities. As an inexperienced staff employer, this was brought to my attention. Some of the returning students expressed that

this camp was rejuvenating for them due to the activities. For those students completing TDC's camp for the second time, they remembered some of the activities. In fifth grade, students attend TDC camp for three days and experience a shorter curriculum than the one week camp program tailored for sixth graders. For that group, some of the students had participated in the program the year before and remembered the activities, meanwhile the other students were eager to embark on the journey. There was a need to adapt the activities for returning students and new students. An example of a modification was the students who knew the activity sometimes were split into smaller groups with students who didn't know the activity. This allowed the returning students to teach new students. The returning students had a new challenge while the new students were able to enjoy the activity.

Plan of action

Very little research exists connecting inquiry-based learning to Universal Design for Learning. Through this capstone, I will demonstrate the impact UDL can have at TDC. As a reminder, the three Principles of Universal Design for Learning are: multiple means of representation, multiple means of action and expression and multiple means of engagement. The vision of The Discovery Center is to aid and create a future for young people to acknowledge, celebrate and accept cultural diversity. They do this with the purpose of facilitating dialogues between students. The dialogue covers topics on race, gender, diversity as well as socio-economic differences. The students learn from one another and improve the way in which they express themselves with care and compassion. Inquiry-based learning advocates for learning through experience. Student led, the work done at TDC is remarkable and impactful because the students take charge of their learning. As a facilitator who participated in the program, the intention of connecting the Principles of UDL is to adapt them in the curriculum to have more

impact on most people and have more representation. TDC mostly catered to very able body students and had few instances where there's exception to the rule. However, the reactive approach that the staff took stated that they were not equipped for the changes. The goal is with the Principles of UDL, the proactive work is completed and allows for diverse learners to take part on the program without feeling excluded or special. At SIT, the course Dismantling Disability: Whose Voices Lead the Way? presented many topics but one that stayed with me was the TedTalk by Stella Young where she articulates that her disability does not automatically makes her a hero or an inspiration just for being her normal self. Incorporating UDL with the inquiry-based learning will push TDC to participate in issues of access physically, mentally, intellectually in continuing the fight for an equitable world as stated in their vision.

Additionally, students engage in alternative ways of learning about math, science and language arts. The idea is to promote diversity through cultural exposure and conversations. TDC is very aware of inclusivity practices around race and gender yet is a novice in terms of accessibility. Therefore, my plan of action is to create a workshop for the facilitators and teachers. The hope for this training, is that participants will grow and receive a broader understanding on Universal Design for Learning to become inclusive. The training could be modified for non-profit organizations who want to implement the Principles of Universal Design for Learning in their praxis.

Through the lens of TDC

As a participant in TDC's programming, I found it incredibly useful for them to implement UDL in their curriculum to ensure they become aware of learning inclusivity. This designed workshop will take place in the program during the two-week's training provided for

the staff. The ten-hour workshop breaks down into two sessions: the first will introduce Universal Design for Learning and its principles and the second session will show and work on the practices of UDL in TDC's curriculum.

To identify people who want to change their perspectives and learn about this topic, a needs assessment will be provided for the staff to complete in various forms of accessibility (hard copy, Eventbrite website, phone relay services, face-to-face, as well as request most comfortable form that may not be listed). This workshop will be covered through the organization, free of cost to participants. The needs assessment will be circulated two weeks prior to staff training. Participants will have the option of completing the needs assessment on their first full day on camp grounds. It would be requested that participants who choose to complete the needs assessment face-to-face schedule a meeting prior to arrival on camp grounds. To meet the needs of all participants, efficient time will be scheduled for facilitator to read through the needs assessments and alter training as needed. This will be an introductory training (Appendix E) on Universal Design for Learning (UDL). When added in TDC's curriculum, the impact is to ensure that TDC uses a proactive approach with its program rather than reactive.

Conclusion

Education happens all around us yet society values intellectual education more than other forms of learning. Some of us, at an early age, learned that knowledge comes from elders and not to question authority. We were trained as children to embody what elders taught us and to accept life as is. Now the world is changing, technology is advancing yet the way in which students learn remains stagnant. Educator Paulo Freire argues that traditional education promotes a form of internalized oppression and a non-learning identity. He refers to it as the

“banking concept” where the teacher (all-knowing) deposits ideas in the students’ minds, expecting them to receive it uncritically, memorize it automatically, and repeat it fully (Kolb, 1984). This model deprives students of their creativity and makes them dependent of teachers. The Discovery Center (TDC) works on changing that narrative. TDC is an organization that works diligently in the community in different schools with teachers, pupils and parents. They serve as a training entity working on social justice issues and defeating the norm by breaking down stereotypes. With inquiry based learning at its core, TDC believe that young children can break out of the “banking concept“ and challenge themselves to learn and grow in a just and equitable world.

After completing this learning process and working on this training, my view on inclusion drastically changed. Someone brought to my attention that inclusion doesn’t occur without exclusion at the back corner which begs the question: Who is being excluded in this capstone? Now my endeavors are in need of assistance. In writing this capstone, my awareness on Universal Design for Learning increased. After going through this journey, as a trainer who had the opportunity to reflect on my experiences, evaluate myself and was pushed out of my comfort zone, I now see growth. Prior to writing the capstone, I knew that I was passionate about the topic but had a difficult time articulating my thoughts around Universal Design for Learning (UDL). The growth through this paper was measure by the amount of comfort that occurs now when clear articulation happens when expressing to someone the three Principles of UDL and their implementations. Moving forward, the continuation of learning and working toward inclusivity and accessibility is an attainable goal. This research is just the beginning and now strongly believe that Universal Design for Learning is a framework that can be incorporated in non-profit organizations.

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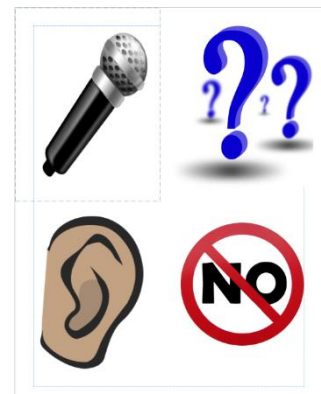
Appendix A

Guidelines

After introducing yourself and reviewing the purpose of the program, let students know why you think it's important to create some guidelines in order to make sure we are all able to get something valuable out of our time together.

4th and 5th Grade:

- Standard TDC guidelines
- Say, “I have found that if we have a set of expectations, or lines, that we can use to guide our conversations it can be very helpful. Rather than me just telling you what **I** expect, I want us **all** to decide what those guidelines will be. I’ve brought some images to help us do this.”
- Introduce one image at a time (in the order below)
 - Allow for participant-led inquiry in establishing the guidelines. The images should be used as a starting point for the students to collectively define their own guidelines
 - Let students guess/describe what they think each image might mean
 - Ask: What might this image
 - **One Mic**
 - **Ask Questions**
 - **Listen**
 - **No**—what actions/attitudes do we think are NOT acceptable here?



Appendix B

Apples & Oranges

Objectives:

- To explain examples of exclusion based on stereotypes, discrimination and prejudice that takes place in homes, schools and communities
- To provide participants with options when they find themselves in exclusive situations
- To understand the meanings of the words inclusion and exclusion

Materials

- Basket, apples (enough for all participants less one) one orange

Procedure:

This activity has several parts that should be sequenced accordingly:

Discussion:

- Show basket of fruit. Ask for several responses to the question: What do you see in this basket? (Note that different people have different perspectives and answers.)
- Explain that we are going to do an activity that explores the concept of inclusion and exclusion using this basket of fruit.
- Have you ever heard of the term ‘inclusion’? Definition?
- Have you heard the term ‘exclusion’? Definition?

Select, Get to Know, Find Again:

- Pass the basket around and allow participants to select one piece of fruit
- Instruct them to ‘get to know’ their piece of fruit. Really study it. See if there is anything about their piece of fruit that makes it unique or different. Tell them to try and identify at least 3 things that make their piece of fruit unique.
- Collect the fruit and place them in the basket
- Next, pass the basket back around and instruct students to find their piece of fruit again
- Once each student has gotten their piece of fruit back, ask the following questions:
 - How did you find/recognize your fruit? (*Unique characteristics*)
 - What did you need in order to find that piece of fruit? (*time*)
 - Would you have been able to easily find your piece of fruit if I didn’t give you enough time to study it?
 - Do you think all the fruit will look the same or taste the same on the inside? Can you tell from the outside?
 - Talking about fruit, but thinking about people: how does this relate to real life and the way we might think about people when we first meet them?

Scenarios/Role-Play:

- Collect all pieces of fruit again and arrange it in the center of the circle with the orange away from the group
- Ask participants: what do you see? Solicit several responses?

- If this is an example of exclusion, how do you think the orange might be feeling in this situation?
- Has anyone ever felt like the orange? Sad, alone, left out?
- Can anyone think of something that the apples could do so the orange is no longer excluded?
 - Allow several students to role-play different situations where the apples and orange can create a more inclusive community
 - Discuss the pros and cons of these different strategies
- In the end, make sure the orange is included with all of the apples...ask:
 - What do you see in the center of our circle? (*inclusion, friends, a bunch of apples and oranges, etc.*)
 - What are some things that all of these objects have in common? (*fruit, round, similar size, grow on trees, delicious juice, snack, nutritious, etc.*)
 - How do you think the orange feels now?
 - Did the orange need to become an apple in order to be accepted by the apples?

Debrief:

- What is exclusion?
- What is inclusion?
- Has anyone ever been excluded?
- Has anyone ever excluded another person?
- We have all probably been in both situations in the past
- Have participants share stories about the experiences with exclusion if they feel comfortable. How was this situation handled? Could it have been handled better?

Appendix C

New Mission

The Discovery Center is committed to building an equitable and just world where everyone has what they need to grow and thrive. We work in partnership with youth, families, schools, and communities to facilitate nurturing spaces where people can understand and challenge systemic racism and oppression. In all of our programs, we practice critical questioning, cultivate connection, and inspire action.

Vision statement

We envision an equitable and just world where all youth have what they need to grow and thrive. We envision empowered students supported by conscious, critically thinking adults, and supportive and safe schools and communities. Institutionalized equity in school systems.

Strategic Plan

After seeking insight from many community partners, teachers, and participants, The Discovery Center is proud to share our new mission and goals. Our new direction represents a deepening of the work begun almost 25 years ago, by Paul Newman and Joanne Woodward and a small group of devoted founders. We are now engaging with the education system on multiple levels to make broad and sustainable systemic change.

Appendix D

The seven values

We value equity and justice.

- We believe all youth should have access to what they need to thrive.
- We take a system focus to uncover and share the root causes, rather than symptoms, of systemic racism and oppression
- We listen and we believe.
- It's not about us. We work with not for, and build power with, not over.
- We build youth leadership.
- We empower, and share power.

We value learning and growth.

- We believe that individuals and organizations have the ability to change.
- We create spaces where individuals can grow together.
- Our work is based on our belief that change happens by building awareness and understanding.
- Our approaches are inquiry based, encourage self-discovery, and utilize critical analysis and problem solving.
- We engage in evaluation and assessment in order to increase our effectiveness.

We value social change and impact.

- We strive for collective liberation, and transformational results in students.
- We believe that to be effective, change needs to be multi-leveled and systemic.
- We engage in evaluation and assessment in order to increase our effectiveness.
- Our approaches are evidence based and promising/emergent.
- We encourage individuals to take action to challenge systemic racism and oppression, and to make change.

We value communication.

- We facilitate courageous and nurturing spaces that encourage open, truthful, and productive dialogue.
- We believe in speaking truth to power.
- We communicate about our work so as to be a model organization.

We value relationships and community.

- We facilitate spaces where students can come together and build community across difference.
- We demonstrate and value interconnection.
- We work to build capacity across communities.
- We intentionally focus on and fostering empathy, compassion, and respect for people, while challenging ideas and opinions.
- We support each other.

- We focus on the community. We work with and partner with others to achieve shared goals.

We value excellence.

- We engage in evaluation and assessment in order to increase our effectiveness.
- We strive to serve as role models to our community, and other organizations.
- We embody passion and persistence.

We value optimism.

- We believe that social change is possible.

Appendix E

Workshop training

Needs Assessment

1. Why did you sign up for this training?
2. Have you heard of Universal Design for Learning? If so, what does it mean to you?
3. What do you want to take away at the end of this training?
4. What do you want me to know that would make this training beneficial for you?

Tentative schedule: depending on the needs assessment, the training will be created to meet the needs of each participant.

Purpose:

The purpose of this training is to create an open space for participants to explore Universal Design for Learning as a framework.

Goal:

The goal of the training is to bring awareness on the topic and provide preliminary communication on the subject, a safe space for participants to share their experiences and skill techniques for participants.

Objectives:

Participants will be able:

1. to participate in conversations on Universal Design for Learning
2. to have an understanding or a better understanding of the topic
3. to have a shift of reference and utilize the principles of UDL daily
4. to learn from one another and be more conscious in the future
5. to add once the needs assessments are completed

Workshop 1

This workshop will be an educational piece. Trainer wants to have participants fully understand UDL.

- Ice breaker

The objective is to complete an interactive activity to get participant comfortable with the workshop. Participants will explore individual and group identities.

All My Friends

Time: 15 minutes

Materials: enough poly spots or paper plates for each participant

Arrange the group in a circle with one person in the middle. Everyone should stand on a poly spot to mark their place. The person comfortable to be in the middle says, “All my friends who... [Insert any description you like].”

Note: The description must be true about the person in the middle. Everybody in the circle who matches that description must leave their place and find a new place on an available poly spot. The person who does not find a spot to stand on is in the middle and becomes the next caller.

Disclaimer: Students may not immediately return to the same spot they stepped off and they may not move to the spot directly to their left or right. If a student in the middle cannot think of what to say, they may simply call out “All my friends” and then all participants must find a new place in the circle.

Modification: This icebreaker could take place inside or outside. Express to participants that at this time, you would like them to know each other. Ask participants to find a position where they are most comfortable. They need to be within distance to converse with the group, they are advised to pay attention and to participate in this activity. Providing options to participants, explain this activity as stated above. Then share that the activity can be modified by the group with a consensus voice and provide 5 minutes for alteration. Share with participants that the icebreaker is to last 15 minutes and bring out most voices from the group. Keeping different learners in mind, note to participants that other materials are provided with various activities.

Materials: enough space for each participant and other diverse materials for participants who chooses not to engage in this icebreaker.

Everyone should be comfortable on their mark place. The person comfortable to be start says, “All my friends who... [Insert any description you like that is true about you].” Everybody who matches that description expresses it in their preferred method: clapping, snapping, raising of the hand, standing, walking, smiling, any mode of expression likable to the participant. The person chooses one participant to go next who then need to share something true about themselves that is different than what was stated earlier.

Debrief

Did you discover something new about another student? Did anything surprise you? Did you find any commonalities or differences? Did you have any challenge with the activity?

- Break

This time is set to allow student the opportunity to prepare themselves for the second part of the workshop. This time is for the facilitator to set up the room.

- Introduction: Universal Design

This mini lecture will glance at the term Universal Design and set a background for participants to better understand Universal Design for Learning. The facilitator will pull out component of this paper to craft a short PowerPoint presentation for the training. This section will focus on:

Brief history

Context

- Introduction: Universal Design for Learning

This section will be more interactive. Diving in the different learning styles and the three Principles of Universal Design for Learning, facilitator will provide this information to participants in a creative way making sure that each individual is engaged.

History

Practicality

Workshop 2

This workshop will be a practical piece. Trainer wants to have participants emerge in completing activities from TDC through the lens of UDL.

- Icebreaker

Review last session- any questions

Go over last session to see if any participants have any questions. It will also be used as a refresher for people and help set the atmosphere for the second workshop.

- Delve into TDC curriculum

1 teambuilding

1 diversity activity

Dot Diversity

Objectives

- To understand the different ways that groups are formed in society and how these groups form identities.
- To understand ways that social groups may become exclusive.
- To experience feelings of being insiders and outsiders.
- To see that sometimes we need to step outside our comfort zone and challenge what is seen as the norm if we are to make needed changes.

Materials: Colorful Stickers, one sticker per participant

Implementation

1. Explain that the first part of this activity is silent. There will be no talking until students are given permission to speak again.
2. Have participants close their eyes. Place a sticker on each person's forehead. Choose 1 person to receive a sticker that's a different color from anyone else in the group. Give everyone else a dot that matches the dots of at least two others in the group. The size of the color groups can vary.
3. Have participants open their eyes. Tell participants to "find their group", without talking. Be careful not to tell them to group themselves according to the color of their dots. (Observe how groups are formed and notice how they treat the student with the different color dot)
4. Ask students to show with their thumbs up if they are happy with the group they are in and the groups that other students are in. Make sure it's clear how the groups are divided and if there is one student standing alone.

Debrief

- How did you find your group?
- How did you feel when you found your group?
- Was there anyone who didn't feel like they found a group? How did you feel when you could not find a group?
- Did it occur to anyone to invite the 'different' one into their group? Why/why not?
- When I asked if everyone was comfortable with their group and the groups that everyone else was in, how many thumbs went up? Did you say you were comfortable even though there was someone who was alone and uncomfortable?
- What did you use to form your groups? Why? What were my specific instructions?
- At what point did you realize it was too late to invite the other student into your group?
(It's never too late to do the right thing)
- Does this have anything to do with real life?
- When are groups good and when are they harmful?

Next time you see someone looking lost because they are excluded from a group invite them in. Not only will it make them feel good it will make you feel good and you might make a new friend in the process.