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# The imperative for real-world experiences in Kenyan teacher preparation for disability inclusive teaching

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#### Abstract

Traditional university-based teacher training in Kenya has relied on theoretical campus-based coursework which provides strong knowledge but little opportunity to develop practical skills. The need for practical skills is particularly evident for teacher candidates who are expected to teach students with disabilities who attend class in regular education settings. This case study outlines a pilot class at Daystar University that incorporated video, field trips, and real-world assignments within an experiential learning model to determine the impact of real-world experiences on student attitudes towards individuals with disabilities and their families, knowledge of disabilities, and skills in identifying and using understanding of learner strengths and weaknesses to make instructional recommendations and incorporate those recommendations into the design of class-wide learning activities. Teacher candidates enrolled in the pilot class reported positive changes in attitude and understanding towards individuals with disabilities, increased learning, and had more confidence in their ability to work in inclusive classrooms. These results have implications for ongoing curriculum restructuring in teacher education in areas of the world where educator preparation lacks the necessary resources for implementing a series of fully supported field experiences leading to a full-time teaching practice opportunity.

**Keywords**: teacher preparation, educator preparation, experiential learning, special education, inclusion

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# Introduction

Effective teachers actively combine content knowledge, understanding of students, and pedagogical skill to maximize the learning of their students. Consequently, university educator preparation programs (EPPs) rely heavily on courses held on campus to address the knowledge base necessary to become effective teachers. However, application of this knowledge requires opportunities to be in classrooms to see and experience elements that can only be covered theoretically in a campus classroom and to obtain the practice necessary for developing important teaching skills.

This paper is based on changes incorporated into *Education for Exceptional Children*, a required course in the teacher education program at Daystar University. Course outcomes expect students to be prepared to teach in inclusive secondary classrooms, to recognise learners with disabilities, and to be able to modify instruction to meet the learning needs of all students. This paper seeks to provide awareness of the need for experiential learning in higher education to meet those expectations.

#### Political Background for Education of Students with Disabilities in Kenya

In 2003, Kenya introduced free primary education (Abuya et al, 2015) open to all learners, including those with disabilities. In 2008, Kenya ratified the 2006 United Nations Convention on the Rights of Persons with Disabilities which included protecting the right to education. In 2009 the Ministry of Education issued the National Special Needs Education Policy Framework which laid out the goals and objectives for educating students with disabilities including an emphasis on providing inclusive education in regular schools. These rights were further affirmed in Article 27 of the 2010 Constitution of Kenya which specifies that every person is equal before the law. Furthermore, Article 54 is clear that persons with disability are entitled to dignity, respectful treatment, access to education and institutional facilities, reasonable access to all places, public transport and information, appropriate means of communication such as braille and sign language and access to materials and devices to overcome constraints arising from a disability.

While much remains to be done, increasing numbers of children with disabilities are being educated in inclusive classrooms. The National Special Needs Education Policy Framework, (Ministry of Education, 2009) defines inclusive education as an approach in which learners with disabilities and special needs, regardless of age and disability, are provided with appropriate education within regular schools. In order to provide an appropriate education in regular classrooms, teachers need multifaceted training that addresses their own attitudes towards disability as well as practical skills in analysing learner strengths and needs and utilizing appropriate accommodations to capitalize on strengths while meeting the learning needs of students (Brownell et al, 2019). It is in light of this need that Daystar University requires a course on education for exceptional learners.

# **Experiential Learning in Educator Preparation**

Experiential learning is the process where learning happens through direct experience. Educational theorists John Dewy, Carl Rogers, and David Kolb have highlighted the importance of "learning by doing" (Dewey, 1986, reprint from 1938). This experiential education takes a problem-based approach with critical thinking that is very different from the less impactful rote learning referred to by Rogers as 'meaningless' cognitive learning.

As reviewed by Morris (2019), Kolb's Experiential Theory argues that effective learning can happen at any point in a four-stage cycle. At the concrete stage, the learner gets a new experience or interprets an experience in a new way. During the reflective observation stage, learners reflect on personal experience using the lens of their experience and understanding to gain meaning from it. The abstract conceptualization stage involves forming new ideas or adjusting thinking to align with experience and personal reflection. Finally, the active experimentation stage involves the learner applying new ideas to the world around them.

This model of experiential learning recognizes that while each stage contributes to learning, different types of learners may approach each stage in unique ways. For example, divergent learners may prefer to observe and reflect with others before immersing themselves into a new situation where they focus on concrete learning. In contrast convergent learners may prefer to actively experiment with new ideas drawn from abstract theory to solve practical problems. In short, experiential learning theorists view students, regardless of learning style, as being central in the learning activities, gaining knowledge, and therefore being personally involved in learning.

In the context of teacher training, experiential learning provides teacher candidates with context that enables them to link theory to practice. As a profession that is situated in community settings, field-based learning experiences are particularly vital to teacher preparation. As programs aimed at preparing individuals to be effective in this setting, the most critical aspect of the learning continuum in teacher preparation is application. When facing a class of students, each with their individual learning strengths and weaknesses, a teacher is continuously problem-solving. In this complex and constantly changing environment, teachers must be able to flexibly figure out different ways to meet the significant challenge of determining the best options for meeting varied student learning needs in order to maximize learning.

Experiential learning is a particularly important element of teacher training in the United States where educator preparation programs are required to provide teacher candidates with significant amounts of hands-on experience and opportunities to connect theories and knowledge gained in the university classroom to real-world classrooms prior to their culminating full-time clinical experience (CAEP, 2022). A great deal of research has taken place in the United States that shows that experiential education in teacher training programs leads to a better understanding of course material, a broader view of the world and heightened appreciation of the community. It also allows development of personal insights into the teacher candidate's own skills, interests, passion, and values as they gain opportunities to collaborate with diverse organizations and people, gain skill sets of positive professional practices, develop a feeling of gratification from assisting in meeting community needs, and gain self-confidence and leadership skills (Kent State University, n.d).

The benefits of experiential learning have been consistently linked to general achievement in higher education (Xerri & Radford, 2018). In addition, learners that actively participate and take interest in their academic achievement gain higher levels of learning (Wang et al., 2021). More specifically, a large body of evidence shows that teachers become more effective as they gain more experience (Podolsky et al, 2019).

# **Experiential Experiences in Kenyan Teacher Preparation**

In recognition of the importance of experiential education and the demand for mandatory community-based practicum experiences (Dorasamy & Pillay, 2010; Kadii, 2012), the Kenya Teachers Service Commission requires all teacher candidates pursuing a bachelor's degree in education to practice teaching for at least six months in a period of two years before graduating as a qualification for employment. This experiential experience, popularly known as teaching practice, requires teacher candidates to plan, teach, and assess students with regularly spaced supervision from their university and daily mentoring from a cooperating teacher. However, research indicates that teacher candidates are inadequately prepared for their teaching practice experience (Amolloh, Ganira, & Wanjiru, 2018) and universities frequently fail to fully

implement policies related to supporting teacher candidates during teaching practice which results in inadequate levels of supervision (Kasomo, 2012).

Universities in Kenya face many challenges in trying to oversee the teaching practice semester. These challenges include finding enough quality placements for their teacher candidates and having the resources necessary to provide for the time and travel needed to supervise teaching practice experiences. Additionally, teacher candidates report a number of difficulties related to translating course content into teaching practice and indicate that they do not receive adequate support for doing this successfully (Chumba & Kiprop, 2014). While high-quality teaching practice experiences share the need for strong supervision by well-trained teachers and university faculty, it is also critical for teacher candidates to have a better understanding of pedagogy prior to the teaching practice semester (Chumba & Kiprop, 2014). Unfortunately, the disconnect and inconsistency between university coursework along with limited opportunities for preparatory field experiences prior to the teaching practice semester, do not support the development of that pedagogical knowledge. Consequently, as Chumba and Kiprop (2014) concluded, there is a need for taking on the complexity of integrating part-time field experiences with university coursework even though doing so would add additional challenges to universities that would need to provide flexible schedules and develop strong relationships with schools near the university.

The challenges associated with implementing experiential learning prior to the teaching practice semester are many. Most notably are the limited resources available to many Kenyan institutions. For example, teacher candidates preparing to teach in the sciences or in technical subjects like computers, may have limited opportunities to participate in laboratory work or utilize computers necessary for their own learning (Nooghabia, Iravanib, & Famichigher, 2022). Using factorial analysis, these researchers showed the significant impact physical facilities, equipment, and physical space have on the quality of teaching, a finding that is consistent with many other studies (Fowler, 2008, Warner & Washburn, 2009). Thus, a lack of resources for university coursework limits development of knowledge and skills required for effective transfer of this learning to the students they will be teaching. This is compounded by the documented lack of basic infrastructure in primary and secondary classrooms (UNESCO, 2018; APHRC, 2014) which can further hinder opportunities for teacher candidates to benefit from pre-teaching practice opportunities.

Beyond availability of instructional resources, making experiential learning opportunities that extend beyond campus available to teacher candidates is expensive and requires specific funding support. In the United States where preparatory field experiences in teacher education are common, universities commonly employ a field placement coordinator to identify placements with highly trained teachers and faculty teaching load includes time required for supervision of part-time field placements. With low faculty-student class ratios, 14:1 at Shepherd University where the lead author teaches (Shepherd University, 2022), and administrative support for field placements, regular observations, feedback, and application of coursework is possible. However, most Kenyan universities lack the funding to provide for this level of support. Edger (2021) estimated the higher education faculty-student ratio as 1:500 in Kenya. Workloads at this level leave little time and energy for travel to field placement sites and eliminate the possibility for individualized observation and evaluation of individual teacher candidate performance. Moreover, university budgets do not support travel to those sites or compensation for cooperating teachers who would be expected to provide regular guidance and feedback to teacher candidates.

Another challenge to providing preparatory experiential learning opportunities in Kenya involves an emphasis on subject matter expertise over pedagogical expertise of university faculty. Content knowledge is not adequate for effective teaching in primary and secondary classrooms. Rather, a well-prepared teacher candidate should have considerable skill in knowing how to build on students' prior knowledge, break information into manageable chunks, and cognitively engage students in application of new concepts using a variety of learner-centred approaches. However, many of the faculty teaching courses in education programs are subject-matter experts but lack pedagogical skills that would enable them to effectively model learner-centred pedagogy or to facilitate experiential learning opportunities in which teacher candidates are engaged in teaching subject-matter content to primary or secondary students. With little support for learning to apply research-based pedagogy to content instruction, teacher candidates fall back on teaching the way they were taught.

Traditionally, in Kenyan schools, teachers have been viewed as the sole source of knowledge. In addition, only 33% of teachers in Kenya have received training in student-centred teaching methods (Ministry of Education, 2017). Consequently, teacher candidates are unlikely to see student-centred pedagogy modelled in the primary or secondary classroom during a field experience. When combined with a lack of textbooks and other instructional resources, which is common to many schools where teacher candidates might engage in both

preparatory and full-time teaching practice, a preparatory experiential teaching experience may result in experiences based on opportunities to deliver lectures in a teacher-centred manner that fails to take learner needs into account. Such experiences do little to promote improved skill in delivering effective instruction and, consequently, promotes the view that field experiences are a waste of time and resources. Cultural barriers exacerbate this problem as teacher candidates from some cultures that place a strong emphasis on traditional academic activities may be reluctant to participate in experiential activities that are perceived as non-academic (Kakai, 2019).

Developing the practical pedagogical knowledge needed for working in classrooms that include students with disabilities is an even greater challenge. In fact, teacher candidates need even more preparation for working with students with diverse needs because they are often placed in schools where the host teacher does not provide much needed guidance. (Policy Brief 14-03 KUSU). In summary, the inclusion of the semester-long teaching practice is a critical component in Kenyan teacher preparation, but typical preparation for it does not include experiential learning through part-time field experiences and it does not address the greater demands necessary for meeting the needs of students with disabilities who are included in regular classrooms.

# **Options for Incorporating Preparatory Experiential Learning**

Given the significant challenges faced by educator preparation programs in Kenya, it is important to consider possible options that can lead to more robust experiential learning opportunities that will prepare teacher candidates for teaching practice. The following options take into account these challenges and are offered as a starting point for curricular changes in university educator preparation programs in areas of the world that experience similar challenges.

First, teacher candidates may be able to gain important preparatory experiential opportunities through service learning (Furco, 1996; Muiruri, 2015) Service learning involves a paradigm shift towards providing civic engagement as teacher candidates volunteer with governmental or nongovernmental organizations to address real community issues and challenges involving social, economic, and behavioral issues that affect learning (Wambugu, 2018). With high student-teacher ratios in Kenya's public schools, teachers are challenged in meeting the varied learning needs of all their students. Utilizing teacher candidates as school volunteers to work with small groups or individual students provides valuable service to the

community. After checking with local public schools, university faculty can determine the number of hours and type of activities that would benefit teacher candidates and meet the particular needs of partner schools. A commensurate service-learning expectation can then be built into course requirements. Each week class time should be dedicated to having teacher candidates share their experiences as they relate to course content. Additionally, assignments can be designed to allow teacher candidates to apply course content incrementally in the service-learning environment thus providing a fully integrated approach to preparation for a successful full-time teaching practice experience.

Research has shown that teacher candidates who are given opportunities to practice what is taught in their courses gain in both confidence and competence (Kwok, & Bartanen, 2022; Crisp, 1994; Kim & Choi, 2019; Singh, 2017). Service-learning can provide the means for providing that practice. Furthermore, utilizing service learning has the potential of capturing the positive outcomes from previous research showing that service-learning provides opportunities for integrating issues related to professional responsibility, social justice, diversity and stereotypes, and public policy in Kenya (Arellano & Jones, 2018).

Second, while not as in depth as part-time service-learning options that take place throughout the semester, targeted field trips can play an important role in preparation for successful teaching practice by providing real-life experiences that are only found in specific locations. Planning class field trips does require faculty time and can incur travel expense that needs to be carefully balanced against university budgets and the expected learning outcome for teacher candidates. However, taking advantage of economies associated with traveling as a group, focusing on options within the local community, and scheduling experiences strategically can minimize financial impacts and make occasional field trips possible as teacher candidates progress through an educator preparation program. Research has shown that field trips can serve to anchor learning for students and that the learning can have long-lasting impacts in both the cognitive and affective domains (Rone, 2008; Jakubowski, 2003) thus these single experiences should be considered at the program level in relationship to particular desired course outcomes.

Third, with the increasing availability of quality multi-media resources through the internet, experiential learning can be based on vicarious experiences. While not a replacement for direct experience, faculty now have the ability to ensure that all students are able to at least see and hear things that they may not be able to experience directly due to availability, travel, or budget constraints (Schneider et al. 2022; Townsel, 2016). Selection of multi-media

resources should be used to supplement course readings and content provided by the instructor. By providing illustrative examples of practices that are not common to a particular locale, that are difficult to conceptualize, or that are entirely new to students, multi-media-based experiences provide a window to new ideas that even field-experiences may not be able to provide. In Kenya, inclusion is not yet common practice so in the context of preparing teacher candidates to meet the needs of students with disabilities in regular classrooms, multi-media resources can provide a particularly unique and valuable role in experiential learning.

A final option for experiential learning involves incorporating more opportunities for collaborative problem-solving in education courses (Fiore, et. al, 2017). Unlike typical instruction which focuses on presentation of content and then testing memory of that content, collaborative problem-solving involves posing a problem, placing student in pairs or groups, and facilitating their interactions as they draw from experiences and relevant content to seek potential solutions. Problems to be examined can be posed by the course instructor or can come from the experiences of the teacher candidates' own lives. Combining problem-based collaboration with service-learning opportunities, other direct experiences such as a class field trip, and with multi-media vicarious experiences can be particularly powerful when groups of teacher candidates are allowed to focus on applying content to specific challenges posed.

# **Teacher Preparation at Daystar University**

At Daystar University, teacher candidates take 30 credit hours of general education courses, 60 credit hours in two subject areas they are preparing to teach, 6 credit hours of teaching methods, and 46 credits of core education courses for a total of 142 credit hours in the undergraduate degree program. Core education courses include the *History of Education, Philosophy of Education, Educational Psychology, Human Growth and Development, Educational Technology and Media, Sociology of Education, Curriculum Planning and Development, Guidance and Counselling, Comparative Education, Environmental Education, Education representation programs, all this coursework takes place in campus classrooms with few opportunities to apply coursework in field experience prior to teaching practice.* 

Like teacher candidates at other institutions, during teaching practice, Daystar teacher candidates are given sole responsibility for teaching a class at a public school and do not simultaneously attend courses at the university. As their first opportunity to work directly with students, and without the close supervision of the educator preparation program, teacher

candidates face significant challenges in trying to apply many semesters of educational content all at once in classrooms that typically have more than 50 students and provide limited instructional resources.

In an effort to reduce this challenge and prepare teacher candidates for the rigours of the teaching practice experience and their subsequent first year as a new teacher, Daystar University accepted both the challenge to provide preparatory experiential learning opportunities (Chumba & Kiprop, 2014) as they relate to meeting the needs of special education students (Policy Brief 14-03 KUSU, 2014) through a one semester pilot to explore the impact that experiential learning would have on teacher candidates enrolled in the program. EDU 226, *Teaching Exceptional Children*, is a course dedicated to ensuring that graduates of the education program have introductory knowledge of various areas of disability, factors contributing to disability, assessment, and intervention. This course is in keeping with Kenya's 2030 vision which includes capacity building to embrace inclusive education practices (Ministry of East African Labour and Social Protection, 2016).

Traditionally, this class has relied largely on lecturer notes, class and group discussions, and presentations. In keeping with Daystar University's policy of problem-based learning, many discussions focus on case study analysis. However, such discussions remain abstract when teacher candidates taking the course have no direct contact with students, with classrooms where students with disabilities are included, or with teachers who are engaged in meeting the needs of students with diverse learning needs. During the pilot, both direct and indirect experiences were included in the course to make the abstract concrete and provide students with opportunities to apply course content to real-world settings.

As indicated previously, many factors impact an EPP's ability to include practical experiences as a component of their program. The EPP must develop relationships with primary and secondary schools and identify appropriate opportunities for teacher candidates to engage with teachers and youth (CAEP, 2022). University faculty are called upon to go well beyond normal responsibilities in overseeing field experiences. Programs that incorporate extensive field experiences may need to hire additional personnel to handle the many administrative tasks and oversight involved in coordinating field placements used by multiple classes that are taken concurrently as illustrated in extensive Practicum Policy guidelines (Shepherd, 2022). In addition, the expense of travel between campus and the school site may be prohibitive for students and/or the university. Most recently, the advent of COVID 19 impacted opportunities for face-to-face interactions in real schools. Consequently, this pilot

represented a significant effort by the EPP at Daystar University. Quotes from participating teacher candidates are used to illustrate many outcomes in the following sections.

# **Case Study: Experiential Learning**

#### Video Based-Discussions

The first element of the real-world pilot was the inclusion of short videos into the class each week. To prepare for class, students were not only asked to read designated information about the topic to be covered, but they were also provided with a link to a short video illustrating an aspect of the topic. Daystar University provides computer labs with Internet connectivity for all of its students making the use of electronic resources possible for teacher candidates who are unable to personally afford this access. All selected videos were less than 10 minutes long and included footage of students with disabilities, their teachers, administrators, and/or parents. The adage, 'A picture is worth a thousand words' was applied as these video clips formed the basis for a great deal of class discussion.

For example, one week, teacher candidates watched a short news broadcast, "Kenyan Experts Raise Awareness on Learning Disabilities" (Juma, 2021) prior to class. In class, the instructor presented teacher candidates with a quote extracted from the video, "These are not chalk and talk students." Teacher candidates were asked to work in small groups to explain what this meant and how it applied to students with learning disabilities who were placed in traditional teacher-centered classrooms and to identify evidence from the video clip of teaching practices that would not be considered 'chalk and talk.' As Happiness commented, "There has been so much wrong information going around with learning disabilities and this has biased the way people perceive learners with disabilities. I have learnt that these people…possess amazing skills if their strengths were to be built on."

Videos were also used in class to expose students to content that challenged conventional thinking in Kenya related to individuals with disabilities. For example, one week, a video was shown featuring David, a young man with Down Syndrome, who was working for a corporation in the United States delivering mail within a large corporate building (Careers for People with Intellectual Disabilities, 2008). Initially, teacher candidates reacted strongly to this video indicating that independent living with gainful employment for individuals like David could "never happen in Kenya." However, class discussion was followed by small-group work to identify social factors that could be changed and how they as future educational leaders could support changes that would make opportunities like those shown in the video

possible in Kenya's future. "I realized that the government has equally catered for all students despite their appearance, ability, or creation...They have not been kept in a dark corner, rather they are exposed to explore their capabilities" (Patricia).

Use of videos also highlighted progress that Kenya is making in the area of education for students with disabilities and set the stage for teacher candidates to consider their future role as a teacher of a class where students with disabilities were included. "I learnt that the Kenyan government is very serious about matters of special need education" (Mukuu).

The final survey supported anecdotal comments from students during the semester. All responding students rated the use of video content to augment readings as a 5 on a 5-point scale. In the words of Pauline, "Videos increased my motivation and deeper learning. Specifically, it impacted my ability to facilitate discussions with others about what we learnt."

# **Class Field Trip**

The second element of the pilot involved a field trip to three schools for students with disabilities. The visits were arranged through the administrator at the local primary school who had worked with teachers and administrators at the three schools. To minimize transportation costs for the university, visits were scheduled consecutively on the same day and teacher candidates were asked to bring their own lunch. There was a great deal of excitement for this opportunity on campus and many teacher candidates not taking the class asked to be included. Inasmuch as space was available on the university bus, eight additional individuals were allowed to accompany the class. The eagerness for this unique experience was captured in this statement by Patricia, "Many questions ran in my mind giving me sleepless nights eagerly waiting for the field trip to quench my thirst desiring answers."

At the first school, students with intellectual disabilities were playing outside when the teacher candidates arrived. Teacher candidates were able to observe students happily interacting with each other and talking with friends. "We were received with a warm welcome from the students. It was heartwarming" (Mukuu). At the request of the teachers, the students arranged their classroom to accommodate the visiting teacher candidates who soon found themselves sitting side by side with the students while the two teachers discussed their work. "They welcomed us to their classroom, got seats for us, and I was happy to see them actively willing to help us" (Margret). The teachers provided examples of student work, individual education plans, and assessments for teacher candidates to examine. Teachers also called upon students to demonstrate things they had learned in the class to provide examples of the potential

for learning demonstrated by their students. Throughout the time spent in this classroom, teachers answered a number of questions posed by the visiting teacher candidates. "The teachers spoke with so much passion. You could tell that they loved what they did. Seeing such passion reminded me of my own passion for teaching. Just like them, I do not want to do it because of the money, but because I want to be of help to the students under my care" (Mukuu).

On campus, teacher candidates read many things about various types of disability. However, despite things read for the class, many teacher candidates arrived at this school with misconceptions. Their first-hand experience resolved such misconceptions. For example, Pauline said, "Before going, I felt that it's very difficult to handle these students, especially those with intellectual disabilities (because) some are very violent and can even harm you. I used to tell myself that I can't and will never become a special education teacher in my life. I also had a feeling that the disabled can't do anything. They just ate and had to be helped to do everything...After the trip, I was able to change my mentality and admired to become a special education teacher."

In addition to learning first-hand about the characteristics of various types of disabilities, teacher candidates also learned a great deal about Kenya's curriculum. "I learnt that they use a stage-based curriculum...This goes from foundation, intermediate, prevocational, and finally vocational and it is individual based on where an intellectually challenged student is" (Brendah).

The second visit was to a school for students with physical disabilities. After an introduction by the head administrator, teacher candidates visited a grade 6 class which integrated students with and without disabilities. Teacher candidates were encouraged to directly ask the students questions about their school, their class, and their dreams for the future. "One of them was asked what he wanted to be and proceeded to say, 'a neurosurgeon.' It was really beautiful to see someone with a disability believe in himself enough to reach for the stars" (Mukuu).

Teacher candidates were given time one-on-one to get to know a student in order to see them as individuals rather than as a category. "My student wants to be a teacher and travel abroad. He wants to make an impact on society. He is a boarder, and the school makes spacious rooms for the students even though his family can't pay school fees. He has overstayed the school because of an inability to move to the next level but his intellectual ability was really great. He just wished and hoped to finish school and continue studying like other kids" (Susyline). Teacher candidates then moved on to a vocational class where students were working on various beaded projects that were sold to provide money for their families to live on. Once again teacher candidates were given an opportunity to talk one-on-one with students in the class. "The student I spoke with is 20 years old. She is great at making bracelets and aspires to make money through selling them, so she doesn't have to beg" (Mitchelle).

The final stop was to the school for the deaf. Teacher candidates were able to visit a number of classes where they spoke through an interpreter to both students and teachers. "The school has deaf teachers too!" (Mukuu). They learned a few signed words and discovered first-hand the vibrancy of this language. Most importantly, they learned that students who could not hear were capable of learning the same school subjects they themselves had learned before attending the university. "I have always had an interest in learning sign language and seeing students being taught using sign language was very cool. It was an interesting environment to be in. My friends and I discussed how it did not feel like a regular school. It was definitely quieter, but there were still kids playing with each other" (Mukuu). "I expected them to be calm, like stay in one place, and not communicate with each other. I had always imagined them having a lonely life" (Susyline). The students easily corrected those assumptions as they shared the same types of things typical of their same-age hearing counterparts.

While all three visits were done in a single day for budgetary purposes, one teacher candidate's response demonstrated why real-world experiences were so important. "Going right from one school to another, I realized that disabilities are different. I always (thought of) disability as one thing, but I learned that they are different and that was very educative to me" (Brendah). The field trip was held shortly after midterm. Consequently, this student had done more than half the class with an incorrect schema about disability that readings, videos, and class discussion had not corrected. Universal Design for Learning, a model used for addressing the needs of students with different abilities in the regular classroom, highlights the need for making content available through multiple pathways (CAST, 2022). The field trip acted as a new way of representing content for teacher candidates. By providing this experience, the student's schema was corrected, something that may not have happened without the experience, and which highlighted the importance of content being presented through multiple pathways even at the university level and with students who do not have disabilities.

# The imperative for real-world experiences in Kenyan teacher preparation for disability inclusive teaching

Following the field trip, on-campus classes were able to focus on the things seen firsthand as topics like hearing impairment, cerebral palsy, and intellectual disabilities were discussed. Being able to refer directly to things that had been experienced and making connections between what was read and what had been seen first-hand resulted in deeper discussions that were anchored in practical experience rather than theoretical assumptions. This was reflected in statements such as, "I learned never judge a book by its cover, everyone is capable of doing anything they want to do" (Vistas). "At the end of the trip, I felt a burning urge to complete my undergraduate studies and specialize (with) a masters in special education, a feeling I've never felt" (Patricia). Like the indirect experience provided by video, students indicated that the fieldtrip was valuable because they learned first-hand, not just "theory wise" which made their learning more "memorable." Students unanimously rated the fieldtrip as a 5 for providing valuable experience on a 5-point scale.

#### **Real-World Assignments**

Three assignments that required teacher candidates to learn from real-world experiences were built into the class. The first assignment came early in the semester as the class focused on the impact of disability on family and the importance of early identification and intervention. Students were tasked with interviewing an individual who had a family member with a disability. Support was provided for composing interview questions that would lead to greater insights into the experiences of families and connecting those insights into how they, as a future teacher, could support students with disabilities and their families. "Talking to parents…is another very key thing. I learned that as a teacher it is essential"(Susyline).

Using shared experiences with family members as the basis for discussion, teacher candidates were able to examine their own attitudes towards individuals with disabilities and their families. Even more importantly, teacher candidates were encouraged to explore the essential question, "How does my attitude towards children with special needs impact what I will do as a teacher?" Predictably, fear and avoidance were addressed. The other extreme was also addressed, assuming someone has commendable attributes simply because they had a disability. Class discussion focused on the concept that each person has individual strengths and needs, likes and dislikes independent of membership in a disability category.

The second assignment required students to spend a minimum of two hours of servicelearning in a regular classroom with students representing a range of abilities. With the help of the classroom teacher, teacher candidates focused on a single student. They applied skills initially developed in class to observe the student, use checklists, conduct interviews, and analyze work samples to create an outline of the focus student's present level of performance in five developmental areas: Academic achievement, executive processing, functional skills, social/communication skills, and psychomotor abilities. "The physical things that the child does have to be considered for evaluation" (Munene). From the data collected, teacher candidates then summarized the focus student's strengths and needs and made specific instructional recommendations based on those strengths and needs. "I learnt to (give my students) full support. Help them in each and every way you can and also appreciate their progress because that matters" (Brendah).

The challenge of implementing what had been theoretically learned resulted in many teacher candidates returning repeatedly to the school; going well-beyond the two hours required to gain further insights into the abilities of their focus student. In-class feedback was also provided throughout this process to help teacher candidates refine these skills and make realistic instructional recommendations. As one student said,

All this will help me cope with my weak students in class...I will always be ready to teach again...until they all understand" (Margret). "It's the kids who should drive us as teachers to always want to interact with them, teach them, and make them feel important (Susyline).

The final real-world assignment involved applying what had been learned from the field work to create a learning activity for the class their focus student was in, incorporate their instructional recommendations into the activity, and then answer a series of questions in which they had to explain how they were applying course content to the learning activity and justifying the elements of the proposed activity for meeting the learning needs of the focus student.

Students found this two-part assignment to be a significant challenge, however, they gave the assignment unanimous ratings of '5' for its ability to help them learn important skills necessary for their future as teachers. In contrast to in-class case studies, Nicole said, "The practical aspect was very interesting and a new thing for me...it made it easier to point out challenges and come up with recommendations." They also found it satisfying to be able to "design an activity that will help the student improve in his area of weakness and also help the entire classroom."

#### Conclusion

Including real-world experiences into a course that had previously focused on simply teaching about disability was challenging for both instructor and students. However, the pay-off was significant. As Nicole said, "I was hesitant...I was expecting to feel depressed...people with disabilities are rarely discussed at home...some actively work to distance themselves from those who are impacted, others choose to live in denial...but I'm glad I was able to (have these experiences).

Class discussions were grounded in the real-world experiences of the teacher candidates. "I felt privileged that I had an opportunity to witness with my two eyes. I was exposed to the real world of (what) we are learning in books" (Patricia). Rather than simply talking about something, instructor and teacher candidates were able to use explicit real-life examples to address important topics like the social model of disability, current cultural views of disability in Kenya, the challenges of engaging families in meeting the educational needs of their children with disabilities, response to intervention, developmentally appropriate practice, and self-determination. In the words of one student, "I'm so grateful that this (class) forced me to face my fear...I was embarrassed that I had been this ignorant" (Happiness). "While I do not have an interest in pursuing special education, I have newfound respect for it" (Mukuu).

The inclusion of experiential learning experiences also gave teacher candidates an opportunity to develop important skills in assessment and planning that cannot be effectively carried out through mock teaching in a university classroom with peers pretending to be students. By utilizing feedback cycles and revision, teacher candidates got more than just experience, they were able to develop beginning level skills in these areas. "In simple terms, exposure is the best learning experience" (Patricia).

Results of this pilot support Chumba and Kiprope's (2014) conclusion that both experienced and pre service teachers see real-world experiences as a powerful, sometimes the single most powerful, element of teacher preparation. Consequently, discussion is under-way at Daystar University to determine how more practical application through real-world experiences could be incorporated into other education courses. Preparing teacher candidates to succeed in the challenges of their Teaching Practice and as new classroom teachers following graduation should be the goal of all educator preparation programs and moving education coursework from hypothetical to actual practice with the inclusion of experiential learning opportunities will contribute significantly towards this goal. The success of the Daystar

experiential learning pilot can serve as a model for other institutions who are seeking ways to strengthen the preparation of their teacher candidates for teaching practice amid the many challenges and constraints that limit the opportunity for fully supported part-time pre-teaching practice field placements.

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