Preparing Children with Developmental Disabilities for Life in the Community: A Tanzanian Perspective

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Abstract: Special education is relatively new in Tanzania. The Irente Rainbow School (IRS) in Lushoto, Tanzania, where this ethnographic case study was conducted, is the first school for children with developmental disabilities in the area. Their curriculum stresses skills important in family life and the rural economy of Lushoto. The purpose of the study was to explore how local context and beliefs about disability influenced how participants understood their roles at the school and how they implemented curriculum. The ethnographic case study employed qualitative research techniques to ensure credibility and triangulation of data and research was conducted over a ten-month period.

The Rainbow staff created a natural setting to teach and practice daily living and vocational skills to prepare students for home and work. The curriculum was based on the local community funds of knowledge, and the pedagogy on practices that were supported by the local culture. As special education evolves, programs will change to meet the needs of local populations. Knowledge of local context is critical to give children with disabilities the best opportunity for an education and meaningful participation in their community.

Students with disabilities around the world learn first from their families and their environments. Curriculum should be both culturally and socially relevant, providing individuals with the knowledge relevant to their local community and skills that they will be able to use after completing school. Evidence-based practice is a wonderful starting point for curriculum development, but in unique locations, like rural Tanzania, it is also essential to focus on the needs of the local community.

Since the 1980s, the focus on education for people with disabilities intensified through the work of the United Nations. At the same time, a shift toward inclusive education for students with disabilities worldwide occurred in 1994 after the acceptance of the Salamanca Statement on Principles, Policy, and Practices in Special Education by ninety-two governments and twenty-five international organizations. Given that all children have a right to a quality education, the issue of effective educational practice becomes important.

In the United States and the United Kingdom, the use of evidence-based practices to improve the quality of education and to strengthen practices that are proven to increase learning for students has guided the development of curriculum (Brusling, 2005). Davies (1999) characterized evidence-based practices as practices supported by a research base. Evidence-based education describes systematic guidelines for research to establish evidence-based practices (Hargreaves, 1996). The National Center for Special Education Research (NCSER) in the United States, as part of the Institute for Education Sciences (IES), funds research to establish evidence-based practices that have been validated as effective for students with disabilities (“The National Center for Special Education Research (NCSER) Home Page,” 2008). The What Works Clearinghouse program and website were developed by IES to disseminate studies in education and catalog evidence-based practices. Universities educate future teachers about evidence-based practices for students with developmental disabilities and school districts expect teachers to teach the
Curricula exist in schools around the world, but the content and pedagogy of those curricula differ. Curricula is defined by curriculum theorists as "planned learning experiences" or a "structured series of intended learning outcomes" (Johnson Jr., 2007, p. 130). These two definitions look at the process of learning and the outcomes. Other scholars look at curricula in terms of the specific content that is prescribed for learning (Eisner, 1965; Gagné, 1966). Curricula are often prescribed and distributed by national, state, or local educational authorities to use in schools. Schools are where curricula are used and curricula are designed for these specific formal settings (Marsh, 1997).

Since P.L. 94–142, the Education for All Handicapped Children Act, curricula in the United States for students with disabilities have been guided by the Individual Education Plans (IEPs) required for each student with a disability. In recent years, IEPs have been written so that students with disabilities access the general education curriculum. Since the passage of the No Child Left Behind Law (NCLB), educators in the United States have been urged to use evidence-based practices that have been validated through rigorous scientific studies. Scholars and policymakers now seek to identify evidence-based practices and the standards for determining an evidence-based practice (Odom, et al., 2005).

Functional Curricula

Traditionally, students with more significant disabilities and some level of cognitive impairment are provided with curricula that focus on functional academics, functional life skills, and vocational skills to prepare them for life after school, rather than a strictly academic curriculum that might be in place if students are preparing to attend college (Browder & Cooper-Duffy, 2003). The emphasis in the functional curriculum is on students' learning skills to improve their quality of life. In this case, functional is a term used to describe activities in which people without disabilities would engage independently in natural settings. Such activities as shopping at a grocery store or riding a bus are considered functional (Dymond & Orelove, 2001). The content of the functional curriculum reflects existing academic curricula as well as skills and knowledge necessary for life and work in an inclusive community (Brown, et al., 1979; Schmalle & Retish, 1989). The rationale for the functional curriculum is that students with developmental and severe disabilities need explicit instruction in life skills and functional academics, because they do not typically acquire them through daily interaction with peers and adults (Halpern & Benz, 1987; Snell, 1997). Several researchers have emphasized the need to use functional curricula in recognition that students with disabilities are not well prepared for adult life (Bouck, 2004; Cronin, 1996; Dever & Knapczyk, 1997; Polloway, Patton, Smith, & Roderique, 1991). Nevertheless, there have been few studies conducted on effective curricula and strategies to help students with significant disabilities access the general education curriculum and there is limited knowledge about evidence-based practices that address general education access (Agran, Cavin, Wehmeyer, & Palmer, 2006; Nietupski, Hamre-Nietupski, Curtin, & Shikanth, 1997).

In developing countries, students with disabilities are often taught from a functional curriculum to provide them with the skills and knowledge to participate in society (Kisanji, 1995b). While functional skills are important, schools in many developing countries also focus on basic academic skills.

In Tanzania, as in other developing countries, the non-governmental organizations (NGOs) and donor agencies have coordinated programs and provided the resources to help local communities and regions set up educational programs for people with disabil-
ities. Scholars have argued that donor agencies frequently did not take local culture and interests into account in the past, even when implementing small-scale local programs (Chaudhry & Owen, 2005; Kalyanpur, 1996). Donor agency-sponsored programs have often come directly from the West, and have been transplanted to developing countries. They have been implemented by a mixture of local staff and imported consultants. Because the donors have provided the funding, they have had the ability to influence the types of programs used (Kisanji, 1998). In many cases, the programs implemented combined curricula and pedagogy used in the schools for typically developing students and were based on the needs of typically developing students and pedagogical practices common to the school systems from developed countries. These curricula and pedagogy did not address local context or specifically look at what was needed for students to be successful in their daily lives, such as instruction in a functional curriculum. The curricula tended to focus on rote academic instruction (Stone-MacDonald, 2010).

**Special Education in Tanzania**

In many African countries, people with disabilities receive few of the many services provided to other society members due to a variety of cultural beliefs about disability, lack of money and resources, and economic priorities that marginalize people with disabilities in favor of those believed to be more able to contribute to the economic growth of the countries (Deku, 2002; Ingstad, 1995; Kristensen, Omagor-Loican, & Onen, 2003). In Tanzania, this is especially true. People with disabilities have fewer opportunities and options for life in their communities (Stone-MacDonald, 2010). However, the spirit of Ujamaa, the system of socialism aimed at enhancing communities and communal cooperation in Tanzania, has given some people with disabilities more opportunities than people with disabilities in other African countries.

Many communities in Tanzania do not have the support personnel or the services available to meet the needs of all individuals with disabilities. Children with disabilities lack both adequate medical and educational services (Ihenacho, 1985). Nevertheless, the government of Tanzania has committed on paper to provide health and educational services to people with disabilities (Ministry of Labour Youth Development and Sports, 2004).

Each year progress has been made to understand the issues faced by people with disabilities in Tanzanian society and to address those needs, starting by educating more children with disabilities and training teachers to be special educators. There are educational opportunities and schools for Tanzanian children with disabilities, but those options are limited and may not be preparing them for the transition to adult life and participation in their communities. According to the 2002 census, there are approximately 34,569,232 people in Tanzania. Of those people, about 10 percent have disabilities, similar to the estimate by the World Health Organization (WHO) (United Republic of Tanzania, 2003). Nevertheless, in 2005 only 1% of students with any kind of disability attended school (Karakoski & Stroem, 2005). In a study of special education services in Tanzania in 2005, researchers found that only 821 teachers had credentials to teach students with special needs and none of those teachers held bachelor’s degrees. Since that time, two higher education programs in Tanzania have started offering bachelor’s degrees in special education and the first class of students will graduate in October 2011.

This ethnographic case study was conducted at the Irente Rainbow School (IRS) in Lushoto, Tanzania during 2008-2009. The purpose of the study was to explore how local context and beliefs about disability played a role in how participants understood their roles at the school and how the curriculum was implemented. By analyzing this particular case of how disability and special education are understood within a local context, a deeper understanding of the role of local context in the United States and other countries can be achieved. The following research questions focused my study: (a) What are the local funds of knowledge about disability and the role of people with disabilities in the community in Lushoto, Tanzania? (b) How are these funds of knowledge manifested in curriculum and daily teaching practices at the Irente Rainbow School? (c) How do the interactions between the Irente Rainbow School and the
Lushoto community illustrate beliefs about disability in this community?

Method

Research Design

The ethnographic case study aimed to explain how the school activities and curriculum reflected local culture and needs in this rural Tanzanian community. To develop this ethnography, I observed and participated in the daily activities of the school and community for a total of 13 months over two research periods; I conducted interviews using a representative sampling of parents, teachers, and community members; I collected documents relevant to daily work at the school, life in the community, and the development of the local and national curricula; and I used video and feedback interviews to record additional data at the school and check my understanding. I also employed several techniques to ensure credibility of my findings, which will be discussed below. Constructivist grounded theory methodology was determined to be most appropriate for capturing the experiences and perceptions of the teachers, students, family members, and community members in order to gather a richer understanding of the total context (Charmaz, 2006). This methodology allows a researcher to identify a process or phenomenon to study and focus on a few key local concepts or features (Glaser & Strauss, 1967).

Grounded theory allowed me to accurately develop categories and explain the experiences of the particular case under investigation and then to make general statements that may be useful in similar situations. Using this methodology, preconceived categories were avoided initially. Initial data analyses lead to emerging categories and themes. The categories rose out of the data and were recorded using in vivo codes. In vivo codes are terms used as codes that are taken directly from participants’ words and actions (Glaser & Strauss, 1967; Strauss & Corbin, 1998). Coding continued until clear themes emerged and categories became saturated. Follow-up interviews and continuous observation were used to verify the hypothesized themes and data to support the themes. I used triangulation to confirm themes as well as to validate my data between sources, using interviews, observations, and document analysis.

This approach allowed me to capture the uniqueness of the situation, gather a richer understanding of the total context, and make assertions that may be applicable in other settings. To understand the context, one must explore how the participants’ world is constructed and the processes therein (Charmaz, 2005b).

Context of the Study

Founded in 2005, Irente Rainbow is unique in Tanzania as a special school for children with developmental disabilities because the students live with their families, as opposed to attending a boarding school. The skills that the students learn at school are immediately transferred to life at home. The school curriculum is purposefully designed to prepare students to become productive members of the local rural community through an emphasis on the local environment and culture.

Irente Rainbow School in Lushoto, Tanzania, a rural town of approximately 10,000 people, currently serves 28 children, aged 6–25, with developmental disabilities including mental retardation, autism, hydrocephalus and cerebral palsy. Although the local Lutheran Church founded the school, approximately half the children are Christian, while the other half are Muslim. The school aims to provide students with the academic, vocational, social, and cultural knowledge and skills to be active members of the community. Therefore, local context and cultural beliefs about disability are vitally important to understand regarding the design and implementation of the curriculum.

Formalized special education is relatively new in Tanzania and this is the first school for children with developmental disabilities in the area. The school started in 2005. Most students at IRS did not attend school before 2005, because public primary schools would not accept them.

Data Collection and Analysis

Interviews were conducted with 15 families, 13 school staff, and four local leaders. Informal
discussions were held with 12 additional teachers and families. I used a representative sampling of teachers, parents, and community members to document experiences across socioeconomic status and age and severity of a child’s disability. Observation, interviews, and document collection occurred over my entire research period.

Data analysis occurred throughout the study using the constant comparison method from the tradition of constructivist grounded theory for data analysis (Charmaz, 2005a, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1990). In this case study, the educational process for students at the Irente Rainbow School was the focus. Key concepts included cultural beliefs about disability, various influences on the curriculum, and the participation of the students in the local community. Initial decisions about data collection were guided by my knowledge of the phenomenon and further decisions about data collection were made during the process based on the analysis of data gathered (Glaser & Strauss, 1967).

To ensure credibility of my findings, I utilized prolonged engagement in the field including daily visits to the school over ten months, participant observation, interviews, and document collection. I also used a research assistant to help with transcription and translation to check for the accuracy of meanings. Finally, I used five peer debriefers, who had knowledge of special education, research methodology, and the school and local community, to review the data and coding. To ensure the validity of the data I used five strategies outlined by McMillan and Schumacher (2006): prolonged time in the field; in-depth interviews; triangulation of interviews; observation, and documents; member checks; and peer debriefing.

Results

Conceptual Framework

Using grounded theory, a unique conceptual framework that combines the work of three groups of scholars explaining the global and local forces impacting the school, community, the curriculum, and the pedagogy emerged. Bronfenbrenner’s bioecological model (1992) was employed to explain how community characteristics on a global level influence the views of disability and community life. Within the local context, the content of the curriculum at IRS is based on local funds of knowledge important to family life and local culture. Funds of knowledge illuminate the critical skills necessary for survival and success as members of the Lushoto community (González, Moll, & Amanti, 2005). Figure 1 represents the overall model of the study showing the relationships among Bronfenbrenner, funds of knowledge, and Rogoff’s cultural traditions of instruction (Stone-MacDonald, 2010).

To understand the pedagogy of the school, I examined the instructional traditions described by Rogoff and colleagues (2007). At the school, they use the instructional model of intent community participation to teach social and vocational skills. In this model, adults and students work together on daily activities in their community and learning occurs through feedback, modeling, and participation. On the other hand, math and literacy were taught using rote methods based on assembly-line instruction (which is the common form of teaching employed in most Tanzanian public schools). This model views the teacher as the expert, pencil and paper activities are common, and students demonstrate their knowledge through questions and answers.

At the Irente Rainbow School, the teachers utilized and augmented the “funds of knowledge” the students gain from family and the community. Gonzalez et al. (2005) define “funds of knowledge” as “historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (p. 72). In order to be successful participants in the community, Irente Rainbow School teachers “must look beyond the school itself to understand local meanings and the impact of schooling” (Gonzalez et al., p. 40). While students with disabilities may be seen as lacking basic skills and “viewed with a lens of deficiencies [and as] substandard in their socialization practices, language practices, and orientation toward scholastic achievement,” the acquisition and application of these funds of knowledge may help them to be more successful members of society (Gonzalez et al., p. 34). At
Irente Rainbow School, funds of knowledge inform teaching practices to provide locally and culturally relevant lessons. The understanding of community funds of knowledge informs the preparation of students with disabilities for integration into their communities after schooling.

Each community has a different set of skills and knowledge that need to be acquired to participate socially and economically in daily life. Table 1 shows an extensive list of the community funds of knowledge important in Lushoto that informed teaching and learning in the school and community.

This list illustrates the knowledge that is most important for all individuals to have to participate as culturally, socially, and economically active members of the community. In Lushoto, self-care and vocational skills are the most important skills to have for daily life. Academic skills are also important, but it is possible to survive and work with minimal skills—functional literacy and functional knowledge of money. One student’s mother made and sold charcoal to support her five children and two grandchildren without a husband. Her children helped her, but she was unable to read or write. A member of the school staff helped me to explain the intricacies of informed consent to this mother in her local language. She could recognize money and exchange it in the denominations with which she commonly worked in her business. Beyond her work, she bartered for some of her goods and grew her own food at home on her farm. While she is living in poverty, she is surviving and her children have their basic needs met on a daily basis. To this mother, functional skills are more critical to survival than academic skills. In her experiences in this local community, she has not seen how academic skills have helped the people she knows to do any better than she does in life. Opportunities are simply limited and functional skills are most important to be success-
ful socially and economically in this community (Stone-MacDonald, 2010).

Themes

Beliefs about Disability. The local beliefs and values about disability in Lushoto are complex and center around beliefs about God’s role in peoples’ lives. In Lushoto, most people understand the role of medical and health issues in the cause of disabilities, but people also believe that there is a God or another force that influences the medical problems. In this culture, people believe that God has a plan for everything and that having a child with a disability is mpango wa Mungu (God’s plan). While it is not easy to have a child with a disability, this is part of the role God designated in the society for the parents of children with disabilities, by giving them the children, and such parents should feel blessed. One father said:

For me personally, I believe that causes of disability are part of God’s plan, because children with disabilities are not only our children. We Tanzanians, even in Europe, at another time you were surprised that even livestock were born with disabilities, but this is part of God’s plan.

In an interview, a teacher stated that in a passage in the book of John, Jesus commands his people to take care of all society and to support the weak and raise them up. She explained that the Bible tells God’s people that it is their responsibility to care for children with disabilities and that God has a plan. The Bible passage justifies their work.

The children had disabilities because they were fulfilling a role for God. Based on strong religious beliefs, both Muslims and Christians see children with disabilities as part of God’s plan. Individuals talk little about curses or witchcraft and see these beliefs as part of their past. Christian and Muslim beliefs about foster care and support for families permeate local culture, but do not necessarily involve active membership in the community. People still turn to traditional healers and medical doctors to treat the symptoms of a child’s disability.

School staff teaches community members and parents about the difference between an illness that can be cured and a disability that is permanent, but can be treated and the symptoms reduced after intervention, therapy, and education. People commonly hold both traditional and religious beliefs about the causes of disability, and these beliefs were not necessarily mutually exclusive in the traditional culture. These findings are consistent with the existing literature (Devlieger, 1994, 1999; Kisanji, 1995a; Kiyaga & Moores, 2003). Islam

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**TABLE 1**

A Sample of Community Funds of Knowledge in Lushoto

<table>
<thead>
<tr>
<th>Household Skills</th>
<th>Agriculture Skills</th>
<th>Personal Care Skills</th>
<th>Social Skills</th>
<th>Material Knowledge</th>
<th>Academic Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewing</td>
<td>Feeding a goat</td>
<td>Bathing</td>
<td>Greeting people</td>
<td>Carpentry</td>
<td>Counting</td>
</tr>
<tr>
<td>Cooking</td>
<td>Cleaning animal</td>
<td>Dressing</td>
<td>Receiving guests</td>
<td>Masonry</td>
<td>Measuring</td>
</tr>
<tr>
<td>Sweeping</td>
<td>Using a machete</td>
<td>Using the toilet</td>
<td>Washing hands for guests</td>
<td>Shoemaking</td>
<td>Writing</td>
</tr>
<tr>
<td>Washing dishes</td>
<td>Using a hoe</td>
<td>Brushing teeth</td>
<td>Helping neighbors</td>
<td>Repairing tools and machines</td>
<td>Recognizing name</td>
</tr>
<tr>
<td>Washing the floor</td>
<td>Planting seeds</td>
<td>Washing hands with a pitcher</td>
<td>Riddles and myths</td>
<td>Brick making</td>
<td>Identifying/using</td>
</tr>
<tr>
<td>Setting the table</td>
<td>Preparing a garden</td>
<td>Hair care</td>
<td>Singing</td>
<td>Plumbing</td>
<td>money</td>
</tr>
<tr>
<td>Fetching water</td>
<td>Harvesting</td>
<td>Shining shoes</td>
<td>Cell phone use</td>
<td>Making charcoal</td>
<td>Reading</td>
</tr>
<tr>
<td>Caring for children or elderly</td>
<td>Fixing broken utensils/tools</td>
<td>Feeding a goat</td>
<td>Cutting trees</td>
<td>Knowing days of week/time of day</td>
<td>Knowing historical and current political figures</td>
</tr>
<tr>
<td>Fixing broken utensils/tools</td>
<td>Harvesting produce</td>
<td>Shucking corn</td>
<td>Knowing days of week/time of day</td>
<td>Knowing days of week/time of day</td>
<td>Listening to stories</td>
</tr>
<tr>
<td>Washing clothes</td>
<td>Shucking corn</td>
<td>Carrying leaves</td>
<td>Counting</td>
<td>Counting</td>
<td>Counting</td>
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<tr>
<td></td>
<td>and produce</td>
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</tr>
</tbody>
</table>
or Christianity had been interconnected with traditional beliefs for several decades in the local culture. While local beliefs systems and Christian belief systems required that children with disabilities be cared for in the families, this did not always happen due to shame. Shemweta (2008) found:

In the [Wasambaa] culture disability is, therefore, held as unpleasant situation that exists and that must be accepted. Parents and the community feel compelled to take care of their disabled children and adults. . . Due to the communal life practiced by the [Wasambaa], the problem and effects of intellectual impairment to the children were handled by the community, not only by the family or parents. If parents were not able to cultivate or plant seeds, due to the problem of the defected child, the people around filled the gap and brought even food to the particular family.

Children are to be cared for by their families and protected based on cultural and religious beliefs, but local practice does not require that children with disabilities be given an education or active role in the community (Stone-MacDonald, 2010).

*Models of Disability.* In the study, I considered four models of disability to explain how disability is understood in the Lushoto community. The medical model represented the most positivist view that disability is caused by a medical diagnosis and that problems can be addressed through rehabilitation services and medical care (Kaplan, 1999). The pluralistic model presented by Susan Peters looks at disability as a social construction which is both viewed and addressed with the local context and set of beliefs in that culture. This model, she argues, empowers the individual and his or her family to take control and make their own decision about how the disability will impact their future (Peters, 1993).

In Lushoto, the medical model, the rehabilitation model, and the pluralistic model were all apparent in the beliefs of local stakeholders. People recognized that medical causes existed for people’s disabilities and that those disabilities could hinder their ability to participate in their community or do work.

Despite these widely stated beliefs, the outreach staff and others at the Irente Rainbow School believe more work is needed to persuade the general public in Lushoto that supporting individuals with disabilities to participate in the community is the correct path. In the outreach program, the staff works with parents and district villages to educate them about the rights of people with disabilities and how these individuals can be part of the community. Teachers and parents saw the school as a path to rehabilitation for their children. One church leader explained:

The opportunity of the school or the role of the school in society is to show that it is completely possible that these children go to school like other children and the school has helped also in the education [of the community] through words and actions to see that “it is possible, it can be done” and indeed the meaning of the school is to push other schools and teachers to show respect for those who do this work and to recognize that in our district there is a school that provides this service. Therefore, I can say that in our community or in society the school demonstrates to the society that children have rights to receive an education like all other children. It is a school like any other school, therefore [Rainbow] is indeed showing that [to society].

Through educating the children at the school and through its work in the outreach program, the diocese demonstrates that it cares about these children and their future in the community. Rehabilitation would provide skills and knowledge to do work and participate socially in the community. Finally, some teachers and parents recognized the importance of their beliefs and how their local culture embraced these children and helped them find their place through education and knowledge of cultural practices. Several models of disability are present in Lushoto because community members themselves have different beliefs about disability and different understandings of the role of people with disabilities in the community.

*The Irente Curriculum.* The school’s pedagogy can be explained through two traditions of instruction described as didactic instruction and intent community participation (Rogoff,
et al., 2007). At the school, students are taught academic subjects such as math and literacy using didactic instruction or rote methods of instruction and learn this knowledge through lecture and direct instruction with the teacher as the expert. A Rainbow teacher explained how the students at Rainbow learned their numbers very slowly over a few years, when she taught the child the number one first, and then moved to two and then three. One teacher said:

In class one, students begin to count 1–10, this is core of kindergarten, but here a child is doing 1–10 and this is his third year in the class. Therefore, you must first begin with one and then go to two, and then three. But, in Standard one [in the primary school], it is totally different. You are able to teach a student one, two, three and he/she will understand after you do exercises on one, two, three for a few days.

The following section from field notes illustrates the difficulty some students have with counting:

Using blocks, [the teacher] asked Sebastian to count 3 blocks and show what 3 is. Willy was supposed to show 2 blocks and Theo was supposed to show 4 blocks. When Sebastian was wrong, she asked the class if he was right, but he had shown 2. He finally got it on the 3rd try with help. Vincent modeled how to count the blocks and showed him how to move them to the side after he counted them. Willy and Jally also needed more than one try and scaffolding to show their numbers.

In these lessons, students have fewer opportunities to work together and help each other in the learning process. In this excerpt, “sema” means say, so she was telling the students, “Say one, say two, say three,” and so on and they then said the number after the command. In the next example, a teacher showed Rose a picture of the letter a.

Teacher: Herefu huu ni nini? (Which vowel is this?)
Rose: No response
Teacher: Sema “a” (Say “a”)
Rose: A

Teacher: Tena (again)
Rose: A
Teacher: Tena (again)
Rose: A
Teacher: Tena (again)
Rose: A
Teacher: Wote (everybody)
Whole class: A
Teacher: Tena (again)
Whole class: A

This type of call and response for an individual student and the whole class was very common and occurred daily in different subjects. The rigidity of communication is evident, but it is also important to note that the language is in isolation and not connected to real tasks or how one would typically use language. The students can chant vowels and syllable patterns, but do not understand how those exercises connect to reading stories or signs in the community.

Vocational and social skills are taught through intent community participation. This tradition supports the collective nature of the culture and encourages adults and students to learn from and support each other. These children can learn better through seeing and doing, rather than being told. Students learn the tasks most important to daily life, participating in them using the same tools and procedures as adults. A Rainbow teacher explained their participation structure:

Smaller children learn from the bigger ones because we have shown the bigger ones how to begin and the smaller children like this very much. So, the students strive to go to the garden and continue to do the work on their own. Even cleaning tasks, the younger ones watch the older students sweep and mop and do it themselves. The teachers have stopped doing this work. The younger students learn a lot from the older students and if a younger student sees an older student doing something independently, they like to do it too.

Students work side by side with teachers doing the work. Students are never forced to participate, but are allowed to watch. But frequently students want to try and help, as well as practice the task because their teacher and peers
are doing the task. Furthermore, the work the students do at school supports the daily operation of the school and is not solely for practice, but for a purpose. Students are gaining and practicing skills that they use at home on a regular basis to contribute to their family socially and economically.

The curriculum was based on the national curricula, the Montessori principles, and knowledge of local skills that were needed in the community. The curriculum was originally enacted without the national curriculum for students with intellectual disability, and school administration utilized their knowledge of the primary school curriculum and the local knowledge about farming, animal husbandry, cleaning, carpentry, self-care skills, and social skills students would need to be accepted in the community as active members. This collection of knowledge and skills was determined through an informal process by stakeholders to find the community funds of knowledge (González, et al., 2005; González, et al., 1995). Community funds of knowledge were then utilized in the educational process at the Irente Rainbow School. A parent explained what his child has learned since he came to Rainbow and his contribution to the family:

He works, like when his sister is not here, if you tell him, he washes the dishes well and they are very clean. If he got work in a hotel, he could go there and wash dishes. He goes to the Mosque on Fridays and he can go by himself without any problems. We send him to the store. We can give him a piece of paper with the name of the item if he doesn’t understand and he can give it to the storekeeper and he will get whatever he needs.

This student can support his family, but the family also supports his learning needs by using a piece of paper to write down the item. Together, they are both learning and participating in daily life.

The School is Educating the People. The Irente Rainbow School has been dynamic in changing the beliefs of people in the local Irente and Lushoto community to view people with disabilities positively and to help support children with disabilities and their families.

Educational services and support services through the community-based outreach rehabilitation program have occurred through the work of the church, rather than the government. In Tanzania, students with disabilities have been slow to receive their rights to an education and have fewer opportunities to participate in public primary schools if able. On the other hand, the local village government leaders in Irente and some areas of the outreach program have been quite supportive of the Rainbow School, and the outreach classrooms, giving more children with disabilities the opportunity to have an education even if they cannot come to Lushoto. The presence of the students as community members increases the likelihood that the community as a whole will accept people with disabilities as full members.

Nevertheless, there are counterexamples of how Lushoto and Irente face difficulties in finding acceptance and community membership for students with disabilities. One local researcher stated:

During the research, the researcher faced several problems. Some of the interviewees, especially in the rural areas, hesitated to give relevant information as they feared to be punished by the government, especially those who have children with intellectual impairment. Hence it was time consuming job to convince them that they were safe enough, and their information would be helpful to the society (Shemweta, 2008, p. 12).

There are church leaders and diocese employees who do not show respect for or value individuals with disabilities in their community. Education and disability awareness training needs to occur for all diocese employees if students are going to successfully take diocese jobs and participate in the diocese as active members.

Is the Community Ready to Include People with Disabilities? The stakeholders in the school believe that the students can participate in the community and are learning the skills needed to participate actively in the community and in their families. The parents, teachers, and community members also believe that the community as a whole is not ready to give the
students opportunities to work and be active adults in the community. As long as the students stay in their families and work or participate in the local areas or neighborhoods where they live, they will be accepted. The community is unsure about greater visibility for these students and needs more education and assurance about their skills and abilities. One church leader explained:

The opportunity of the school or the role of the school in society is to show that it is completely possible that these children go to school like other children and the school has helped also in the education [of the community] through words and actions to see that “it is possible, it can be done” and indeed the meaning of the school is to push other schools and teachers to show respect for those who do this work and to recognize that in our district there is a school that provides this service. Therefore, I can say that in our community or in society the school demonstrates to the society that children have rights to receive an education like all other children. It is a school like any other school, therefore [Rainbow] is indeed showing that [to society].

There is still a disconnect among community members between having skills and being able to do the job. Students with disabilities from the school can demonstrate their skills to help a carpenter, clean a shop, or wash dishes, but thus far when school administrators try to find jobs for these students both in church institutions and in community institutions, people are not welcoming and worry about the risks of employing a person with a disability, such as poor behavior or reduced productivity. The lack of formal employment options in the country, particularly in rural areas, exacerbates this problem.

Students can stay at home with their families in the extended household after school, but will need some way to earn money for basic supplies and to reduce their burden on their family. In this community, the needs are very basic, but the chances for employment outside the home are few and the possible pay is also small. Students have the best chance to earn money by making or growing things and selling them in the market. Families are supportive of their children and believe that they can participate in the family and community, but it has taken time and education to convince the parents and the community members. The children have the skills to facilitate participation and acceptance, but must be given the chance.

Discussion and Implications

Despite the current emphasis on evidence-based practice in special education (Arnove, 2003), there is a great need to educate students with disabilities to be members of the community and to provide them with the skills and knowledge to be active in the community. Given these circumstances, curriculum must be responsive to the local needs of the students and their community, as well as individual needs of the students. The curriculum at the school, as it is enacted by the teachers, should reflect the community’s funds of knowledge.

This research can serve both as a study to support the work at the Irente Rainbow School and a case study for understanding how local beliefs and practices influence curriculum and community integration for students with disabilities in other rural communities especially in Tanzania, throughout Africa and in developing countries. This study can help to explain the unique situation in Lushoto, Tanzania and be used in the development of a protocol for understanding the local context, which can be useful in other settings. The findings from the study also provide an opportunity to critically examine how to provide opportunities for individuals with disabilities in local communities for integration in order to support them, their families and their community. This study has implications for practice in Tanzania and the United States, but it also has global implications for teacher education and training around the world. The conceptual framework utilizing the adaptations of the three theories could be used to better understand the community, the content, and the pedagogy that could be most useful for particular schools, communities, or cultural groups. Funds of knowledge have been applied in several settings, but it continues to be an important model for learning about and applying relevant knowledge im-
important for educating students in a culturally responsive way. Funds of knowledge should be applied to more settings to understand how students with disabilities and their families who are also culturally diverse can most benefit from the curriculum they are learning.

This study can also provide lessons about how to improve teacher training outside the United States by American-based professors and educators. When conducting training seminars in schools outside one’s language and culture, teacher trainers should attempt to work with the person translating before the presentation. The translator needs to be aware of what will happen in the presentation and the goals for the teachers. In the ideal situation, the trainer would work with someone familiar with the teachers, school, and/or content to provide feedback on the training and its cultural relevancy.

Natural settings are important for learning skills used in daily life. Primary schools with self-contained classrooms in Tanzania can use the findings from this study to examine how their classroom settings and curricula could be modified to meet the needs of their students. Planting a garden or building a goat enclosure for students to practice would be relatively simple in a typical primary school. Furthermore, helping to serve tea and clean up would be natural activities that already occur and students could participate in these activities. Implementing the lessons learned in this study in a Tanzanian context would be feasible because several pieces are already available. The critical variable would be the buy-in of families and teachers to this mode of instruction (Stone-MacDonald, 2010).

This study has applicability in the United States as well. First, the results show that local context is important and knowledge of local context in designing functional curricula for students with developmental disabilities is essential. A curriculum must address not only the various domains in functional academics, life skills, social skills, and vocational skills (Patton, Cronin, & Jairrels, 1997), but the manner in which these domains are addressed needs to reflect the local context. To accomplish these goals, teachers need to know the important community funds of knowledge that impact their students and their families.

Second, classrooms should represent natural settings for that community. Students acquire and maintain skills better when they learn and practice in community-based settings (Westling & Fox, 2000). In some special school in Tanzania, students practice cooking at school on wood or charcoal stoves because these are the two most common (and economical) ways to cook food in Lushoto. If most students in a city in the United States would do their laundry at a laundromat, the school should provide machines that resemble laundromat machines, rather than washboards or a set of stacked machines with different controls or machines that do not use coins. In addition, students can benefit from participating in authentic work at the school that has purpose for them and the productivity of the school, as well as teaching the students particular work skills like answering the phone or filing papers.

The current standards-based reform movement is pushing for the use of evidence-based practices for all students regardless of their individual characteristics, needs, culture, or context. While evidence-based practices may be important in special education, the decision about which specific practice to use should be based on the student, teacher, and the context. One-size-fits-all education does not work without context. Instruction and curriculum must have meaning and purpose for students, teachers, and the community.

References


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