

Lessons Learned: Providing Professional Development to Support Students with Special Needs
in Sub-Saharan Africa, Uganda

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Abstract

The “Lessons Learned” article describes the journey of three American educators who worked to provide professional development in the Sub-Saharan country of Uganda. One was a missionary residing in Uganda, one was an education consultant, and one was a university professor. When the education consultant visited her missionary sister in Kampala, Uganda, they met the Inspector of Special Needs, which led to requests for professional development over a period of three years. The professional development was conducted for teachers in several primary schools, training for faculty at the Kyambogo University in Kampala, and a workshop for parents of special needs children in one of the primary schools. The American educators soon learned that providing professional development to teachers without access to the plethora of books and resources commonly found in the United States was not easy. They had to identify topics that were strategy related. Five models of professional development were used to meet the training needs. Upon request of the Ugandan partners, additional U.S. partners were identified, and a Memorandum of Understanding (MOU) was developed. The article describes the cross-Atlantic MOU writing, the approval process, and complications resulting in the death of the MOU. The article identifies lessons learned throughout the professional development journey and recommendations for others who are interested in working with under-developed nations.

Keywords: Uganda, special needs, inclusion, professional development, international

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Strategic Objective 1 in Uganda, for education, is “To ensure equal access by gender, district, and special needs at all levels of education”, according to the Ministry of Education, Science, Technology, and Sports (MESTS, 2015). The objective is bold and challenging. MESTS (2015) states there are 18,889 primary schools in Uganda, which provide an education for 8,264,317 primary-age students. There are 192,566 teachers, which results in a pupil to teacher ratio of 63:1. Of the 18,889 primary schools, only “63.2% have adequate sitting and writing space” (MESTS, 2015, p. xiii). The primary schools contain grades one (P1) through seven (P7) with children of typical primary school age as well as children who are over-age. Many children dropout during primary school and return later, which results in teenage children enrolled in primary school (Kavuma, 2010). According to Kavuma (2010), in an article on education in Uganda in the Guardian newspaper, students in seventh grade take their first national examination, the Primary Leaving Examination (PLE), to determine if the student has completed their formal education or is eligible to continue to secondary school.

Primary school in Uganda has been free since 1997 (Kavuma, 2010); however, parents are required to pay school fees to subsidize the costs of school. In their work in Ugandan primary schools, the authors found one of the reasons for students leaving and returning to attend primary school was the lack of payment of school fees. Students were permitted to return to school once the fees were paid, which resulted in missed instructional time for the student. Of the 8,264,317 students attending primary school, 1,286,985 are age 13 or older (MESTS, 2010). In addition to school fees, parents pay for the child’s school uniform and school supplies.

Classrooms in Uganda include both typically developing students as well as those with special needs. Similar to the United States, children are identified by their primary presenting disability. The disability categories in Uganda are named Autism, Hearing Impairment, Mental Impairment, Multiple Handicaps (deaf and blind), Physically Impaired, and Visually Impaired. There are 148,095 students with special needs served in primary schools in Uganda. Table 1 provides the proportionality for each disability.

The highest proportion of students with special needs, 19.1%, is found in P1 (MESTS, 2015). At the secondary level in grade 8 (S1) through grade 13 (S6), there were 7,751 students with special needs with the highest proportion of students identified as Visually Impaired. The least represented disabilities in secondary schools, nationally, were students with Autism (89 students) and Multiple Handicap (70 students). The highest number of students with special needs, served in Uganda schools, was 23,959 located in the Buganda Region of Uganda (MESTS, 2015). The Buganda Region is named after the Kingdom of Buganda, which is located in the capital city of Kampala.

In his United Nations Educational Scientific and Cultural Organization (UNESCO) presentation, Byamugisha, the Education For All (EFA) National Coordinator-Uganda, stated that one of the critical aspects of inclusive education in Uganda is “creating a sense of belonging among SNE (Special Needs Education) children by adjusting and changing practices in the classroom” (Byangisha, 2007). To facilitate the inclusion process, Uganda developed a policy for inclusion to be a priority; this included the integration of inclusive education in the curriculum structure of basic education and the training and re-training of teachers, along with a structure to administrate and manage special needs education.

In Uganda, the continuous professional development for teachers is a very essential component of the education system; however, the area of special needs is given little attention due to budget constraints. To provide professional development, training is conducted at the national, regional, and local levels. Training at the national level is typically organized with a few participants invited from districts. For example, a workshop may target three participants per district, such as the District Education Officer, the District Inspector of Schools, and the district Chairperson of the Head Teachers' Association. These workshops are typically conducted by the Ugandan Ministry of Education and Sports. At the regional level, districts in particular geographical regions are brought together for a conference. These workshops are also conducted and coordinated by the Ministry of Education and Sports. In Uganda, there are four geographical regions: Central Region, Eastern Region, Western Region, and Northern Region. Each region typically has between 30-40 districts that participate in the regional workshops (Mr. Mubarak, personal communication, March 19, 2017).

District education staff members prepare annual work plans and these activities are included in the district budget. Districts, therefore, conduct their continuous professional development for teachers at either the district level or at the Cluster Center level. Schools prepare their work plans for each term with continuous professional development incorporated in the schools' work plans. The benefit of this process is that all teachers in the school have the opportunity to participate in the workshops. Sometimes two or three schools mobilize resources and pull their teachers together for training in a specific area depending on their training needs. According to Mr. Mubarak, one major training need that has been ongoing throughout the initiative is the identification and assessment of learners with special needs (personal communication, March 19, 2017).

In 2008, the journey began for the authors of this article to become partners in the inclusive education initiative in Uganda. Although the original intent was to assist teachers in primary schools in Uganda to better learn strategies to facilitate learning for students with special needs, the lessons learned went both ways.

Building Capacity

With the assistance of the Inspector of Schools/Special Needs Education, meetings were scheduled with potential community and government partners to develop a collaborative approach to training that addressed the goals of the government schools, the Education of Ministry for the Republic of Uganda, and the teacher preparation university, Kyambogo University in Kampala. Meetings were held to discuss the status of inclusion in Uganda, existing professional development needs, and the possibility of a future initiative between the country of Uganda and education entities in the United States. To develop consistency and a broad coalition, meetings were held with the City Director of Education and Sports, the Town Clerk for the City of Kampala, the Chairman/Secretary of Education, Sports, and Special Needs, The Commissioner for Special Needs Education/Inclusive Education, the Inspector of Schools/Special Needs Education, the Vice Chancellor for Kyambogo University, the Dean of the College of Education, and the Head of the Department of Special Needs at Kyambogo University. To develop additional support and technical assistance between visits from the United States (U.S.) partners, the Educator Coordinator for the U.S. Peace Corp – Uganda was added. Three universities in the U.S. were involved in varying degrees: Sam Houston State University in Huntsville, Texas, Lynchburg College in Lynchburg, Virginia, and the University of Mary Hardin-Baylor in Belton, Texas. In 2010, the partners, with the exception of the University of Mary Hardin-Baylor who entered the partnership at a later date, embarked on the

development of a Memorandum of Understanding (MOU). The MOU included an agreement to develop a project of support for inclusion in Uganda, exchange visits between universities and government educators, joint research activities, and professional development. For a period of three years, the MOU went back and forth between partners to arrive at agreed upon roles and responsibilities.

During this time, the Inspector of Schools/Special Needs Education and Mrs. Mary Harlene Dorman, who was at that time a missionary, scheduled professional development at multiple primary schools in Kampala. The professional development occurred over a period of three years.

Professional Development

The professional development was divided into five models: (1) campus-level and district-level training, (2) parent training, (3) Professional Learning Communities, (4) training for students and faculty in the Special Needs Department at Kyambogo University, and (5) video modeling. Meetings were held with the Inspector and the administrators at two primary schools, Deputy Head Teacher Alex Lule, Shimoni Demonstration Primary School, Head Teacher Sarah Bagiwe at Kasubi Church of Uganda Primary School, and Dr. John Okeck, Dean of the College of Education at Kyambogo University, to identify training needs, materials, and resources for training and the availability of follow-up supports.

The first model of professional development was used at several primary schools and a district-level professional development. It was determined that Differentiated Instruction (DI) was appropriate because strategies are designed to respond to the needs of all learners. In addition, it was not necessary to have textbooks or other teaching materials that were not available at the schools, in order to conduct DI training. Some of the DI strategies taught over

the three-year period were “Think-Pair-Share,” Cooperative Learning, Jigsaw from Cooperative Learning, Flexible Grouping, Graphic Organizers, Response Cards, Literature Circles, Concept Mastery, Tiered Lessons, and Thumbs-Up to demonstrate understanding. The district-level professional development was designed by the office of the Ministry of Education and focused on curriculum-based learning. The role of the authors in the district level professional development was to provide information on the U.S. model of curriculum alignment and curriculum-based learning.

The second model of professional development was held at Shimoni Demonstration Primary School for the special education teachers and the parents of children with Intellectual Disabilities (ID). The training was organized to be in the same classroom with the children with ID. In the U.S., parent meetings/trainings are conducted with the children with ID in a separate classroom or at home. In the Uganda primary school, the children with ID sat with their parents and teachers during the training. The first impression of the U.S. trainer was, “this will not work,” but that thinking process was filtered through U.S. experiences. For a period of almost two hours, the students sat quietly next to their parents. Some wiggled while parents simply gave them the “look” and one parent nodded to her teenage son and he went to stand in the back of the classroom and quietly rocked back and forth. Much to the surprise and delight of the trainer, it was acknowledged to the Deputy Head Teacher and Inspector that this could never have been accomplished in the U.S., to which the Deputy Head Teacher gently smiled and stated that it was because “in the U.S. you treat your children like kings and queens.” The behavior management by parents and teachers was gentle and consistent. Students with intellectual disabilities knew what was expected of them and behaved accordingly with quiet, gentle prompts from parents.

Prior to the training, parents of the children with ID indicated they were concerned about the future for their children. In Uganda, because the children with ID would not pass the national exam, they would not be able to continue formal school beyond seventh grade. If the parents had sufficient funds, they could choose to continue to pay the school fees for their child to remain in primary school, although the child would be over-age. The outlook for parent-funded continued education and/or employment was bleak. Using the parent concerns as the guide, a training topic was selected to teach parents the concept of planning for the future, using “Backward Planning.” Backward planning is a process used to identify transition-based goals and activities to bridge from primary school to life at home and in the community. The trainer asked parents questions regarding their goals (dreams) for their child with ID as an adult. While parents talked, the trainer wrote the dreams on the board. Examples were: attend a vocational school, get a job, learn to make crafts to sell on the street, remain at home and be safe, etc. Next, as a collective group, the trainer guided the parents through a process to brainstorm what actions and supports were needed to reach the post-school goals. The parents discussed how the teachers could help them during the time the student with ID remained in schools, as well as family and community supports to assist in reaching the future goal. After the planning was concluded, the parents stated they felt more positive about school ending because they had a tentative plan, but better than that, they now knew how to think about the post-school goals and problem-solve to reach the goals. The parent training ended with the Life Skills Teacher reminding the parents to send water to school with their children, so it could be boiled for the children to drink while at school.

The third professional development model evolved due to a political situation that developed on the morning of the scheduled professional development. There were some small

isolated riots in one area of Kampala near the Buganda King's Tomb. It so happened that Kasubi Primary School was located next to the grounds of the King's Tomb, so the professional development was cancelled. Although the Head Teacher and faculty wanted the trainers to come another day, the travel schedule did not allow for rescheduling. To help the faculty obtain the professional development, the trainers took the teaching materials and re-designed them to be used in an independent study format using the Professional Learning Communities (PLC) concept. The Head Teacher for the school facilitated the PLCs and provided feedback to the trainers. The PLC groups were organized around the following topics: Book Celebration, Book Clubs, Card Sort Activity, DEAR Activity, and Grab Your Brain. The topics addressed strategies and tools for struggling readers, which was a topic identified as a need by the primary teachers.

The fourth professional development model was conducted at Kyambogo University. It was determined that due to the broad range of disability specialists, as well as faculty, undergraduate students, and graduate students, the topic needed to meet the diverse needs of each of the university participants in the professional development. To accomplish this goal, the U.S. educators provided training on Response to Intervention (RtI), which is a multi-tiered approach to identify struggling learners and design a system of intervention and supports within the context of the basic education system. The university participants indicated they had read about RtI but had not received any training on the topic prior to that day.

The fifth model of professional development was video modeling. About the same time, the annual visits to Uganda by the U.S. trainers ended and (or because) the Inspector of Schools/Special Needs Education lost his job in a change of government level administration. Because the ex-Inspector had a passion to make a difference for children with special needs in Uganda, communication continued between him and the U.S. trainers. He gained another

position with the Uganda Disability Support Organization (UDSO) as the Uganda Initiative Coordinator. In 2015, the University of Mary Hardin-Baylor agreed to become a training partner and helped develop videos that could be delivered to Uganda for professional development. After much discussion with representatives in Uganda, it was determined that virtual videos were not possible due to the Internet problems. The decision was made to develop CD training modules that could be delivered by personal courier to Uganda.

To ensure the modules met the needs of the Ugandan teachers and there was buy-in for the training, the UDSO Coordinator, Mr. Mubarak, conducted a survey, developed by the U.S. partners, to determine the priority training needs. The survey was revised multiple times to ensure plain language was used to facilitate accessibility and common terms, and language structure was used to facilitate understanding. The survey and results can be found in Table 2.

The survey consisted of 20 questions. In the demographics, participants identified if they were primary or secondary and, if so, which grade they taught, or if they were in postsecondary education studying to become future teachers. Participants were also asked how many students were in the class, how many college preparation courses they had taken that focused on disabilities, and how the teacher would rate education in Uganda for students with special needs using a Likert scale. An example of one of the changes in the language of the questions, to ensure the surveys were culturally sensitive, was changing the wording in questions from “Answer all that apply” to “Tick all that apply”. The final question, question number 20, was open-ended and requested that the participant list the topics/subjects they wanted for training. The UDSO Coordinator, Mr. Mubarak, facilitated the administration of the survey, calculated, and analyzed the results before returning the information to the U.S. partners.

Survey results provided much valuable information in the development of the training CDs. In response to the question stem “All children with disabilities are entitled to appropriate education,” 157 of 180 respondents agreed or strongly agreed. Additionally, 169 agreed or strongly agreed that “Learning materials may need to be changed for children with disabilities.” The sentiment expressed in these two responses indicated the willingness and desire to continue serving children with disabilities. The remaining questions on the survey were disability specific beginning with a general knowledge about a particular disability (autism, intellectual disability, learning disabilities) followed with a question about knowing how to teach a child with the specific disability. In each category, the majority of the respondents indicated they were knowledgeable about the disability. When answering the questions about how to teach, 67 agreed/strongly agreed to knowing how to teach children with autism, 149 agreed/strongly agreed to knowing how to teach children with learning disabilities, and 99 agreed/strongly agreed to knowing how to teach children with mental retardation. The open-ended question requested respondents to indicate topics related to children with disabilities in which more training was desired. The responses were varied with no indication as to the number of people who may have responded similarly. Topics ranged from teaching the core subjects to students who are deaf-blind, visually impaired, or who have communication disorders to teaching strategies for students in the mainstream setting with various levels of needs and support. The results of the survey led the researcher to conclude two videos were necessary. Both videos began with the premise that all students were included in the same classroom with typically developing students. The first video addressed students with high incidence disabilities such as learning disabilities, autism, and behavior challenges. Topics included reading and math strategies, chunking, discrete trials, communication, pre-teaching, visual schedules, social skills,

and an escape card. The second video addressed students with low incidence disabilities such as mental retardation and included topics such as literacy, communication, structured activities, flip charts, and visual schedules. Each video included instruction regarding the use and implementation of the strategy followed by a video demonstrating the skill. Most of the videos included children with disabilities who participate in a special needs lab at the university represented by the author of the videos. When video of children was not available, the strategy was demonstrated by the author of the video. It was important to be sensitive to the limited resources of the intended audience in Uganda; therefore, materials used were items that could be found anywhere such as sticks as counters, paper, and pencil. Also, included in the videos are interviews of students who had previously used the strategies as young students and were now in college or high school.

Training with the CDs began in the summer of 2016 with 58 participants in the first session. The training was provided to teachers in Kampala City who were very pleased with the information from the CDs. Budget constraints proved challenging in the dissemination of the training in the Kayunga district. The participants' comments included strategies for implementing the training in settings where large numbers of students are present in the same room. The author's response to this comment can be viewed in the lessons learned section of this article. The other comments centered on identifying and assessing students with special needs, not a topic addressed in the videos.

Lessons Learned

The following is a list of lessons learned during the development and implementation of each of the five professional development models, the development of the MOU, and the political climate in Uganda.

- There was no release time or substitute teachers for professional development. In each case, students participated in independent work, while a few adults monitored the classrooms, so teachers could attend the professional development in another part of the school building.
- There were no classroom textbooks or teaching materials available at either of the primary schools. The training topics were limited to teaching strategies that promote student engagement, interactive learning, and teacher-made materials. Differentiated Instruction was identified as the most useful training topic.
- The Ugandan government provides some funds for education; however, other entities also provide support, such as Non-Governmental Organizations (NGO), international churches, and international governments. Because Uganda is a member of the British Commonwealth, the curriculum and national exams are provided by Great Britain. One major disconnect was identified between classroom instruction and assessing for concept mastery on the national exams. There was a lack of alignment between the national exams, the national curriculum, and the textbooks used in the classrooms. Students did not have individual textbooks but had access to the information. The school procedure was for teachers to check out the textbook from the Head Teacher and write the chapter or story on the slate chalkboard for students to copy in a spiral notebook. Over time, students had a handwritten version of the textbook. Most textbooks were donated from the United States and other English speaking countries. The problem was that the material in the U.S. textbooks did not match the content in the British curriculum nor the content tested on the national exams provided by Great Britain.

- Professional Learning Communities was an excellent tool to provide strategy and skill training through the group-guided model. It was developed to meet an unexpected need due to the cancelled staff development on the day of the riots. In follow-up correspondence, the Head Teacher stated that the teachers were very pleased with the information, the results they saw after using the strategies in the classroom, and enjoyed the PLC model of professional development.
- One of the greatest surprises were the lessons learned on behavior management in the Ugandan homes and schools. Although abnormal behavior was observed and was stereotypical for students with intellectual disabilities, the behavior was easily redirected with minimally invasive prompts, and the behaviors did not reach a level that interfered with learning.
- Online learning was not an option due to the lack of computers, lack of access to the internet, and the inconsistent operation of the internet when it was available.
- Although there were more resources available at the university for professional development, there was no projector to display a PowerPoint. There was but a slate chalkboard to write notes and diagram the RtI process.
- Transition services to bridge education to adulthood for children with disabilities did not exist in the Uganda education system. Transition services are designed to support the basic education and special needs education for students with disabilities, to facilitate positive post-school results. The desired results are related to employment, independent or supported, postsecondary education/training (lifelong learning), and independent living skills which includes a variety of skills such as self-care, safety, functional

communication, travel training (safe pedestrian and bicycle skills in Uganda), and domestic skills such as cooking and cleaning, etc.

- The Memorandum of Understanding process hit many roadblocks but not due to the partners in the MOU. For example, the edits and approvals had to move through many branches of the Ugandan government, then were sent to the U.S. partners, and then returned to Uganda. This took years. By the time each partner had approved the process, the Dean of the College of Education at Sam Houston State University, the Vice-President of Lynchburg College, and the missionary providing the on-the-ground planning and in-country support all retired. This meant the new partners had to be educated on the initiative, have buy-in to the process, and be willing to sign off on the agreement. Although the Peace Corp Education Coordinator for Uganda approved the involvement and support of the Peace Corp in the special needs initiative, she was not able to obtain permission from the U.S. Home Office for the Peace Corp. Another barrier was the ability of the Ugandan partners to observe inclusion practices in American schools. While the U.S. partners were able to plan a visit to the U.S. and obtain letters of support from university administrators and district superintendents, the Ugandan officials were unable to obtain travel Visas from the United States Embassy in Uganda. Emails and calls to Washington, D.C. were not helpful. Eventually, the Ugandan educators and government partners were able to obtain travel Visas to England, as members of the British Commonwealth country.
- Training within the CDs and embedded videos had to be sensitive to the available resources of the intended audience without appearing demeaning.

- The presenter in the video attempted to demonstrate and outline how to generalize the skills on the video to a classroom of many children. The CDs were developed with one speaker instructing each skill. The embedded demonstration videos also included one trainer with one child. The script highlighted ways to use the skill in the large classroom; however, it may not have been explicit enough to convey the message well.

Next Steps

The United States partners and the UDSO Uganda Initiative Coordinator have continued to communicate in an effort to continue the initiative. The Coordinator is now a graduate student working on his Master's Degree in Special Needs at Kyambogo University in Kampala. One of the U.S. partners is working with the UDSO Coordinator as an international partner in planning his master's level research project. All of the initiative partners are searching for grants and additional funding sources to continue the professional development through on-site visits to Uganda, the continuation of the use of Professional Learning Communities, and video modeling through the use of CDs with teaching strategies for professional development. To assist the Uganda partners to begin the development and implementation of Transition Services for students with Special Needs, the Eleanor and Charles Garrett Center on Transition and Disability Studies at Sam Houston State University will develop training materials and information guides on the transition process for the students with disabilities, their parents, teachers, school administrators, and Ugandan community partners.

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Table 1

Students with Special Needs Served in Ugandan Public Schools

Sex	Autism	Hearing Impairment	Mentally Impaired	Multiple Handicaps	Physically Impaired	Visually Impaired	Total
Male	2,654	21,495	18,873	1,923	14,175	18,832	77,952
Female	2,135	20,769	16,716	1,602	10,961	17,960	70,143
Total	4,789	42,264	35,589	3,525	25,136	36,792	148,095

Note. All data were taken from MESTS (2015).

Table 2

Survey Questions and Response Rate

Survey Questions	Category	No. of Responses
Question 1: Are you trained as an elementary or secondary teacher?	Elementary Teachers	124
	Secondary Teachers	00
	Primary Teachers College Tutors	00
	Not Indicated	00
Question 2: What grade level(s) do you teach? Tick all that apply.	Kindergarten	00
	Primary (1st -7th)	124
	Secondary (8th -13th)	00
	Primary Teachers College	19
	National Teachers College	00
	Nursery Teachers college	00
Question 3: How many students do you have in a class?	Less than 40	30
	Between 40-60	27
	Between 60-80	32
	More than 80	35
Question 4: On average, how many children with special needs are in a classroom?	2-4	49
	5-7	23
	8-10	24
	More Than 10	28
	Not Indicated	00
Question 5: How many college courses have you taken that focus on disabilities?	1	35
	2	45
	3	13
	More Than 3	31
	Not Indicated	00

Question 6:	Yes	82
Do special education	No	42
teachers and general	Not Indicated	00
education teachers work		
together in a classroom?		
Question 7:	Excellent	00
How would you rate the	Very Good	06
education system in	Good	15
Uganda for children with	Fair	75
special needs?	Poor	28
Question 8:	Strongly Agree	77
All children with	Agree	32
disabilities are entitled to	Neither Agree nor Disagree	05
an appropriate education.	Disagree	08
	Strongly Disagree	02
Question 9:	Strongly Agree	78
The severity of a	Agree	33
disability affects the	Neither Agree nor Disagree	04
educational needs of a	Disagree	02
child.	Strongly Disagree	04
Question 10:	Yes	115
The severity of a	No	07
disability affects the	Not Indicated	02
educational needs of a		
child.		
Question 11:	Strongly agree	84
Learning materials may	Agree	30
need to be changed for	Neither Agree nor Disagree	02
children with disabilities.	Disagree	03
	Strongly Disagree	02
	Not Indicated	03

Question 12:	Computers	12
Which of the following	Braille Materials	20
facilities do you use	Sign Language Manual	43
during the teaching	Vocational Training Materials	65
/learning process? Tick	Radio	21
all that apply.	Television and DVDs	16
	Video Cameras	10
	None of the Above	24
Question 13:	Hyperactivity	54
Have you ever taught	Reverses Numbers and Letters	74
children who experience	Trouble Learning to Read	90
any of the following	Slow Learner	112
characteristics? Tick all	Mental Retardation	66
that apply	Trouble Concentration on School	75
	Work	37
	Blindness	57
	Deafness	63
	Emotional Disorders	36
	Autism	97
	Physical Disabilities	18
Question 14:	Strongly Agree	13
I consider myself	Agree	40
knowledgeable about	Neither Agree nor Disagree	22
Autism Spectrum	Disagree	32
Disorders.	Strongly Disagree	08
	Not Indicated	09
Question 15:	Strongly Agree	06
I know how to teach	Agree	33
children with Autism	Neither Agree nor Disagree	21
Spectrum Disorders.	Disagree	36
	Strongly Disagree	14
	Not Indicated	08

Question 16:	Strongly Agree	37
I consider myself	Agree	76
knowledgeable about	Neither Agree nor Disagree	04
Learning Disabilities	Disagree	06
	Strongly Disagree	01
	Not Indicated	00

Question 17:	Strongly Agree	24
I know how to teach	Agree	80
children with Learning	Neither Agree nor Disagree	05
Disabilities.	Disagree	13
	Strongly Disagree	00
	Not Indicated	07

Question 18:	Strongly agree	18
I consider myself	Agree	64
knowledgeable about	Neither Agree nor Disagree	16
Mental Retardation.	Disagree	21
	Strongly Disagree	02
	Not Indicated	03

Question 19:	Strongly Agree	08
I know how to teach	Agree	56
children with Mental	Neither Agree nor Disagree	18
Retardation.	Disagree	31
	Strongly Disagree	05
	Not Indicated	06

- | | |
|----------------------------|--|
| Question 20: | |
| Please indicate any | • Sign language and facts about deaf-blindness |
| topics/subject related to | • How to teach learners with hearing impairments |
| children with disabilities | • Inclusive education especially when it comes to learners with deaf-blindness |
| in which you would like | • Human health and how children with special needs/disabilities can take care of the changes in the human body |
| to receive additional | • Teaching children with visual impairment in an inclusive setting |
| training or instruction. | • Teaching children with multisensory impairment |
| | • Training children with multiple disabilities in self-help skills and activities of daily living |
| | • Training in development and production of materials |

- necessary for teaching learners with various special needs
- Training in curriculum modification to suit the needs of all learners
 - Modern teaching strategies for learners with and without special needs in the mainstream setting
 - Teaching methods for learners with Mental Retardation, Autism, and Deaf-Blindness
 - Training in Braille reading and writing
 - Teaching language to learners with multisensory impairments
 - Training in physiotherapy and psychosocial skills
 - Teaching methods for teaching reading from abstract for example in religious education
 - Sign language interpretation
 - Teaching children with Mental Retardation in an inclusive class
 - Teaching learners with Learning Difficulties
 - How to identify and support learners with Emotional Disorders
 - ICT for persons with disabilities
 - Vocational skills training
 - Autism spectrum and Downs syndrome i.e. signs characteristics and how to support them.
 - Hands on training for mathematics Braille
 - Epilepsy i.e. cause and how to support persons with epilepsy
 - Use and maintenance of the Perkins Brailier
 - Cerebral palsy
 - Braille translation into print
 - Neurology and its implications to the learner
 - Teaching strategies for children with mental retardation, autism, cerebral palsy and dyslexia
 - Communication skills for the Deaf blind persons
 - How to involve children with severe and multiple disabilities in playing inclusively
 - Instructional strategies for learners with multiple disabilities
 - Educational research
 - How to teach children with Deaf-blindness.
 - Instructional materials provision or production. e.g. in measures, skeletal system, digestive system both in human and animals, Reproductive system etc.

- Communication for persons with communication difficulties
 - How to teach children living under difficult circumstances
 - Teaching of obstruct content to learners with communication difficulties e.g. religious education
 - Vocational skills to learners with physical disabilities
 - How to teach learners with hyperactivity, slow learners and management of learners with emotional disorders
 - Assessment for children with special needs
 - Training in mobility skills development
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