The International Association of Special Education

Sebastian Kolowa Memorial University SEKOMU

"Empowering Persons with Disabilities: Developing Resilience and Inclusive Sustainable Development"

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Aims of the IASE

- To promote professional exchange among special educators all over the world.
- To develop special education as a discipline and profession.
- To encourage international cooperation and collaborative international research.
- To promote continuing education of its members by organizing conferences in different countries around the world.
- To foster international communication in special education through *The Journal of The International Association of Special Education.*

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PREFACE

Welcome to the proceedings of the 16th biennial conference of the International Association of Special Education (IASE). The theme of the conference is *"Empowering Persons with Disabilities: Developing Resilience and Inclusive Sustainable Development."* The IASE biennial conferences bring together special educators, families, and other interested professionals and individuals to share ideas and experiences, celebrate acomplishments, and create and renew friendships. This conference is an opportunity to learn about ways to empower individuals with disabilities and to promote sustainable development of inclusive practices.

We appreciate everyone who has been involved in making this conference successful including the presenters, organizers, and participants. ASANTE SANA!

Editors

HIGH STAKES DECISION MAKING: HOW ACCURATE ARE SOME OF THE ASSESSMENT RESULTS?

Adam Lockwood
Karen Sealander
Christopher Lanterman
Shannon Winans
Jo M. Hendrickson

Conceptual Framework and Background

Major placement decisions regarding eligibility and services for students with disabilities are made, in part, based on results from standardized tests. However, few studies have examined the use of norm-referenced academic achievement assessment (Harrison, Goegan, & Macoun, 2018). Research that has examined the practice of school psychologists (e.g., Alfonso et al., 1998; Loe, Kadlubek, & Marks, 2007; Sherrets, Gard, & Langner, 1979; Slate & Chick, 1989; Slate, Jones, Coulter, & Covert, 1992) indicates that these professionals make numerous scoring and administration errors when administering norm-referenced tests of intelligence (IQ).

Given the similarity in standardization rules for administration and scoring between achievement and IQ tests and the lack of research in this area, we hypothesized that student-test administrators utilizing achievement tests will also make numerous errors. We therefore conducted a study looking at how well students enrolled in a dual certification teacher training program gave norm-referenced tests of academic achievement, looking at the number and type of errors made when administering norm-referenced tests of academic achievement.

Specifically, we examined the portions of the Kauffman Test of Educational Achievement Third edition (KTEA-3) test protocols completed by students enrolled in Assessment of Exceptional Learners, a class that is offered to undergraduate and graduate education students. We looked at: 1) how often do student-test administrators start testing at the correct starting points? 2) how often do student-test administrators stop testing at the correct stopping points? 3) how often do student-test administrators provide correct "raw scores" by correctly adding up all of the points earned?

Method

Participants. Thirty-five undergraduates and seven graduate students enrolled in a three-credit hour Assessment of Exceptional Learners class in the spring and summer semesters of 2018 participated in this study. The course was offered at a western United States university. The undergraduate students were at the end of their junior year or in their senior year of a dual certification program. The graduate students took their class in the summer session. Both the graduate and undergraduate students were part of an institutionally approved program of study leading to certification in mild/moderate disabilities and the assessment class was their only special education assessment course. None of the students reported any previous formal training in administering or interpreting individually administered norm referenced tests of achievement.

Instrument. In both the graduate and undergraduate classes, the teaching of the KTEA-3 included requiring students to read about the instrument in their text book and read the manual to answer specific questions related to reliability, validity, normative sample, test construction, administration, scoring, and interpretation. The students had specific activities to complete regarding each of these areas (i.e., basal and ceiling rules, scoring, etc.). They completed one practice scoring activity with data provided to them and two practice administrations with volunteer examinees. During the practice administrations, students administered five subsets (Letter Word Identification, Reading Comprehension, Math Concepts and Applications, Math Computation, and Spelling). For each of these they computed the raw score, and transformed these raw scores to standard scores, percentiles, stanines, and age and grade equivalents using hand scoring procedures provided in the KTEA-3 scoring tables. Additionally, they found the confidence intervals and calculated significant differences between scores. Following each practice students were provided written feedback and class time was allotted to correct any errors made.

Results

Forty-two completed protocols from the final practice administration were used in this study. Protocols were evaluated in two areas: 1) administration and 2) calculation/computation. Administration errors included incorrect starting points, basal and ceiling errors (i.e. incorrectly applying basal and ceiling rules resulting in giving too many or too few items), and giving too many points or not giving enough points.

Computation errors included mistakes in accurately calculating the chronological age, incorrectly calculating raw scores and transforming subtest and composite scores into standard scores, percentile rank, stanine, age and grade and age equivalents, confidence intervals, and subtest and composite comparisons. These data, with the exception of chronological age and subtest and composite comparisons, are recorded on the KTEA 3 Subtest and Composite Score Computation Form (SCSCF).

Our examination of administration and scoring errors revealed several important findings. The majority of examiners (76.2%) made at least one administration and/or computation error. Computation errors were made more frequently than administration errors (observed on 64.3 % and 47.6% of protocols, respectively). Of the subtests that were administered, Reading Comprehension was the most prone to both administration and scoring (occurring on 35.7% and 21.4% of protocols, respectively). This was compared to the second runner ups in both of these areas with 11.9% of protocols having one or more administration errors on Math Concepts and Applications, and 14% of Letter Word Recognitions displaying a computation error. The most commonly observed administration errors involved the use of incorrect ceiling rules (occurred on 38.1% of protocols). This was well ahead of basal errors and start point errors which occurred on (9.5% and 14% of protocols, respectively). Finally, the most common computation errors involved subtest raw score errors (observed on 40.5% of protocols). This was followed by errors to the front page (e.g., transformed scores), which were observed on 31.0% of protocols and use of the incorrect table, which was noted on 16.7% of protocols.

Summary and Conclusions

Since assessment data generated from high stakes standardized instruments are integral and critical to the identification of students with special needs, it is important to not only examine how well future and current teachers administer norm-referenced tests of academic achievement, but also to teach these trainees in such a way as to reduce administration and scoring errors. Employing teaching methods and instructional strategies would be an important next step. Building guided practice into the instruction along with more opportunities to practice scoring may prove helpful and warrant investigation. In regards to the KTEA-3 it seems that focusing on overlearning ceiling rules, encouraging students to double check their raw scores, and paying special attention to Reading Comprehension instruction is especially important.

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EMPOWERING TEACHERS OF CHILDREN WITH SEVERE TO PROFOUND DISABILITIES

Judith McKenzie
Jane Kelly

Background

Despite policy commitment, there has been slow progress towards achieving quality education for learners with disabilities in South Africa, with one of the main obstacles being that there are very few training programs preparing teachers to teach learners with severe to profound sensory or intellectual impairments (SPSII) (McKenzie, Kelly, & Shanda, 2018; Statistics South Africa, 2011). While there is an important place for full qualifications that focus on teaching learners with disabilities, the lack of teacher education can also be addressed through the development of short courses within a landscape of in-service and continuing professional development opportunities.

The Teacher Empowerment for Disability Inclusion (TEDI) project - a partnership between the University of Cape Town and Christoffel-Blindenmission (CBM) and co-funded by the European Union and CBM – has developed short courses that aim to empower teachers to provide quality education for learners with SPSII through training that is focused on inclusivity, diversity and addressing learners' disability specific needs. These courses look at disability studies in education as well as teaching learners with severe to profound intellectual disabilities, learners with visual impairment (low vision and blind), and learners who are deaf or hard of hearing. This paper focuses on the evaluation of these courses, considering how they contributed to teacher empowerment.

Empowerment has been defined as a process whereby teachers begin to take charge of their own growth and resolve their own problems. A teacher who is empowered is one who is confident in their skills and knowledge and who is able to continually develop these skills. Thus, instead of saying that they were not trained an empowered teacher says: "How can I find out?" But how do teachers become empowered? Is it just a matter of telling them to take control? Surely not – it is a process that needs to be nurtured and supported.

Teachers need to be consulted and given the power to make decisions that affect their daily practice. They need to work out what inclusion would look like in their school and identify the school goals and polices that could support it. Research shows that when administrators follow such an approach, teacher morale increases and classroom instruction improves. This means that there should be opportunities for teachers to take on leadership roles (Harpell & Andrews, 2010).

Method

The study employed a qualitative research design, exploring the subjective experiences of those who participated in the TEDI short courses (Willig, 2008). Data were collected via evaluation surveys with 65 participants and eight focus group discussions with a total of 52 participants. These participants were educators working with learners with SPSII, including classroom teachers, principals, learning support advisors, social workers, and carers. The survey questions focused on the educators general experiences of the courses, while the focus group discussion explored how they felt the courses changed them as educators. Data were analysed deductively using thematic analysis (Braun & Clarke, 2006).

Results

Findings suggest that the TEDI short courses contributed to teacher empowerment through: (i) open interactions and communication; (ii) the creation of supportive and collaborative networks; (iii) fostering empathy, and (iv) building confidence and a desire for advocacy.

Course participants seemed to appreciate the opportunity to openly interact and communicate with one another during the delivery of courses: *"I liked the conversation that was open, free and honest"* (VIP2; In order to ensure anonymity, we assigned codes to each of the educators.). Another educator said: *"I think we learnt a lot from one another. So, we go to that course with a vision of how can we get assistance maybe from the facilitators or something like that. But the most learning process was the teamwork*" (IDP20). These kinds of interactions allowed for support networks to form amongst educators: *"I feel like a I am part of a network of people making a difference for inclusion"* (DSEP11). This in turn was empowering as they felt able to return to their schools and communicate with others what they had learnt: *"I will be able to go back and share the knowledge with my colleagues, and also be able to take the initiative to start the little that I can do to change my school"* (VIP1).

The TEDI courses also appeared to foster empathy in the educators through learning and hearing from people with disabilities. Some of the presenters on the courses had disabilities themselves and shared their personal experiences of schooling: *"When you hear their story and how they hated to be excluded and the challenges they had to go through, and the bottom line of all of it, is you just want to be accepted and to be treated as normal. I think that, to me, was a total eye-opener"* (DSEP18). These kinds of experiences seemed to facilitate a change in the educators in that they were able to better understand things from others' perspectives: "*When I went back I looked at myself and children differently. If I can use an example: In the course I learned to ask and not to assume I know everything"* (VIP24). In addition, it built up confidence and a desire to be advocates for inclusive education: "*We are now the advocates for our district office - maybe we should take up that role"* (DSEP18). This educator said: *"At the conclusion of the course I felt really empowered and applied the theory received. Everything did not always work out as planned but I was a much more confident principal. My passion has simply increased 10-fold, and my belief strengthened in the application of inclusive education"* (DSEP20).

Recommendations

Teacher education for children with disabilities should focus on creating platforms where teachers can openly and honestly communicate with one another, form collaborative and supportive networks, and hear from people with disabilities. In this way teachers become empowered to drive their own professional development as they realise that they are able to support each other and grow together with an empathetic understanding of what is required of them to support learners with severe to profound disabilities.

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FUNCTIONAL INDEPENDENCE IN TOILETING: DEVELOPING RESILIENCE FOR PEOPLE USING WHEEL CHAIRS

Esther Oyefeso

Background to the Study

Functional independence skills are indispensable to successful human existence. Functional independence has to do with a person's ability to perform functional activities required for daily living. Improved functional independence will most likely result in decreased reliance on others. Efforts aimed at improving the functional independence of people with special needs should be a fundamental part of their intervention process.

Functional independence is organized according to six sections. These are self-care skills, psycho-social skills, cognitive skills, motor skills, communication skills, and vocational skills (Kings College London, 2015). These six sections consist of skills required for independent functioning. Self-care skills are needed for taking care of oneself. They include eating, bathing, dressing as well as toileting. Toileting involves using a toilet for the purpose of eliminating certain body waste through the process of urinating and/or defecating. Humans need to constantly release waste through toileting (urinating and defecating) to ensure a healthy state. Challenges with toileting may occur for different reasons, including issues regarding accessibility to toileting facilities.

Accessibility to toilet facilities is usually challenging or people on wheelchairs. A wheelchair is a wheeled mobility device in which the user sits. The device is propelled either manually (by turning the wheels by the hand) or via various automated systems. Wheelchairs are used by people for whom walking is difficult or not possible due to illness (physiological or physical), injury, or disability. In United Kingdom, 1.9% of the population uses a wheelchair (Perry, 2015). Wingler (2014) posited that at least 30 million Americans use wheelchairs largely as a result of age related challenges. These members of the society also have the right to use conveniences and toilets comfortably.

The process of toileting involves being able to easily access the toilet facility, sitting on the toilet seat conveniently and well enough to avoid spillage, cleaning up after using the toilet, flushing the toilet and washing of hands. For most wheelchair users, they may not be as easy as it sounds. There may therefore be a need for wheelchair users, especially in regions where conventional toilets are still being used to develop resilience in order to use such facilities as are available. There is also a need to further advocacy for toilet facilities that are conveniently accessible for wheelchair users.

Toileting for Wheel Chair Users

In some instances, wheelchair users may have to be wheeled to the toilet (or wheel themselves). Depending on their level of independence, they may have to be transferred to the toilet seat and transferred back to their wheelchairs after toileting. Asides from the lack of privacy in this method (e.g., removing undergarments), a lot of inconvenience is involved. These challenges may also be paramount in the minds of caregivers who are also attempting to toilet train young wheelchair users. The ease of cleaning up after toileting as well as how to flush (ease of reaching flushing knobs from the wheel chair) may also exists. This should however not be the case.

The Americans with Disabilities Act recommended that the toilet seat height (from floor to top of toilet seat) should be 17 to 19 inches high (costing about US$200 to US$4000 depending on the type of toilet, such as floor mounted or wall hung). Wall-hung toilet seats may also be appropriate as they can be mounted at a height convenient for wheelchair users. Toilet papers should also be at convenient height. Cleaning up after toileting can also be aided by installing a bidet. Installing a bidet allows for good hygiene and privacy for those who find using toilet paper inconvenient. With a push of a button, a wand allows for steady flow of water to help clean after toileting. Grab bars 36 inches apart should be on either side of toilet placement for adequate support (Wingler, 2014).

Pants Up Easy (2015) further recommended that toilets for wheelchair users must have sufficient space, enough to accommodate the wheelchair conveniently. The individual is advised to move the wheelchair as close as possible to the toilet seat, lock the wheel and move the footrest. Clothes can be removed by shifting to edge of seat, then pulling clothes down the ankle. It is usually better to remove all clothes from one leg to avoid tangling while moving to the toilet seat. Removing transfer boards or transfer disc can aid smooth movement to the toilet seat. If transfer boards are unavailable, one can rely on the safety rails or using stand-pivot-sit transfer. Then after toileting, clothes should be replaced. A device called pants up easy can be helpful at this stage (this is a form of arm rest costing about US$975 to US$2075 depending on the model which provides support to the individual, enhancing the process of cloth replacement). Then transfer is done back to the wheelchair. The average total cost of getting a toilet refurbished to aid wheelchair users is about US$200 to US$5000 (Micheal, 2015).

Once all toilet facilities in our nations are well equipped for wheelchair users as illustrated above, the process of toileting will be a lot more convenient. This is, however, yet to be achieved in many public facilities across the world. This may be as a result of ignorance about these facilities, lack of funds or possibly under-rating the population of wheelchair users. This is the time to step up toilet facilities and possibly creating separate toilet space for wheelchair users. This will definitely enable wheelchair users develop resilience in other more important aspects of life.

Recommendations

1. All around the world, toilet facilities in line with the specific needs of wheel chair users should be provided, especially in public places.
2. Charity organizations should help fund construction of toilets and renovation of existing toilets to suit the needs of wheelchair users, especially in developing countries.
3. Companies that make wheelchairs should consider designing wheelchairs with seats that can open at the centre upon the push or a button (or a sliding movement) such that the wheelchair user only has to wheel the chair over the toilet seat without having to go through the stress of transferring from the wheel chair to the toilet seat and back.

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REDESIGNING TEACHER PREPARATION: MODELING A TEAM-BASED APPROACHED AND INTER-AGENCY COLLABORATION

William Butler
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The present teacher work shortage in Arizona demands a reimagining of teacher preparation programs. The traditional mentoring model of placing one teacher candidate (TC) with one mentor teacher (MT) no longer

presents itself as a viable option, particularly for two school districts that presently partner with a university teacher preparation program. To address this shortage and continuing issues such as unfilled vacancies and a high turnover rate, a prototype model was created. This new model supports a communities of practice approach, designing clinically embedded course work, and focusing on program offerings and scheduling to promote the inclusion of TCs from the special education field with other majors and the districts.

Creating Communities of Practice

The new model aligns with Wenger-Tyner and Wenger-Tyner's (2015) descriptions of community of practice (COP), with interactions between practicing teachers working towards a common goal, and Jordan's (2010) Relational-Cultural Theory Model for communities of practice, fostering relationships within the organization and helping cultivate a sense of culture. TCs are placed in teams of two to four, spanning multiple programs, and work with up to two mentor teachers: one general education teacher and one special education teacher. The close teaming of the TCs and the MT helps to create the opportunity to build close relationships within the school. The TCs are a paid, participating teacher, and as such, feel a part of the school culture with increased resilience levels.

TCs receive coaching from a university supervisor and content specific feedback from the mentor and from fellow TCs. This provides the feedback structure for an effective CoP (Rodrigues, de Pietri, Sanchez, & Kuchah, 2018). When TCs were afforded the opportunity to observe and provide feedback to each other, they reported that it allowed them to implement specific strategies discussed in the university classes with someone who was also familiar with the strategy, thus building their confidence and efficacy (Aydin et al., 2013).

Clinically Embedded Coursework

In this model, TCs are placed in the classroom full time and follow the placement school's schedule. Coursework is embedded within their classroom placements, and covers multiple disciplines within the college. With more emphasis on the clinical aspects of coursework, TCs become more invested in the content being delivered (Brown & Nagel, 2012).

In the reimagined clinical experience, the two districts each have a dedicated full time university supervisor who provides support to the TCs and MTs. This support provides coordination among the varied stakeholders (Ong'ondo & Jwan, 2009). In traditional prep programs, classes often seem disjointed from the experiences within the placement setting (Bowers, Eichner, & Sacks, 1982). With the newly designed program, the university instructors collaborate with the districts to align course instruction with district initiatives.

Program Offerings

Recent research supports educator preparation programs that advocate an inclusionary model (Blanton, Pugach, & Boveda, 2013). In consideration of those recommendations and in preparation for the senior year residency (which may include a paid experience), junior year courses are scheduled to promote accessibility and redesigned to take a multidisciplinary approach. TCs from two programs (Elementary/Special Education and Elementary Education) select coursework from a suite of options and complete coursework with peers pursuing a different certification. This model is beneficial to TCs from both programs as they interact with faculty experts from multiple fields, engage in collaborative activities with their counterparts, and complete assignments representing varied classroom environments.

Recommendations and Suggestions for Future Research

The redesigned model can serve as the basis for continued discussions on how best to prepare TCs in the special education field while leveraging the resources of partnering school districts and other program areas. The benefits of using teams to fill teaching positions and pursuing professional growth by use of communities of practice should be explored. Additionally, stakeholders should consider the diverse interests of TCs and offer opportunities to interact and engage with various faculty members and continue to grapple with

curriculum design that supports the intentional and effective integration of experiences with the targeted knowledge, skills, and dispositions in a special education program.

Future research efforts might also focus on the ongoing and honest challenges faced during implementation of a redesigned model. The findings could be used to inform partnerships and potential design of similar, yet varied models at any university charged with preparing teachers in the special education field alongside district partners.

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MAKING HOPE HAPPEN IN VIETNAM THROUGH THE IMPLEMENTATION OF THE BASICS3 CURRICULUM FRAMEWORK

Hoang Thi Nga
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Rachael A. Gonzales

Background

Vietnam has made significant strides in developing policy to ensure the integration of individuals with disabilities into all aspects of Vietnamese society. In 2014, Vietnam signed the Convention on the Rights of Persons with Disabilities (CRPD), a major international milestone in guaranteeing human rights, especially the rights of individuals with disabilities. By signing the CRPD, the Vietnamese government acknowledged that investing in inclusive education specified a commitment to serve the needs of all children and make concerted efforts to ensure their full social integration and the realization of their full capacity.

The Ho Chi Minh City University of Education, Faculty of Special Education, was established in 2003 with a primary mission to train and develop high quality teachers for special education. The Faculty of Special Education works as a research center as seen by the establishment of the Early Intervention Pilot Program. As the field of special education continues to develop in Vietnam, an area of much research has been the search for an appropriate curriculum and instructional design specific for special education. In 2015, Ho Chi Minh's University Academic Committee adopted the BASICS3 Curriculum Framework, after an International Association of Special Education volunteer/special educator from the San Bernardino City Unified School District introduced the curriculum framework to the university.

Despite many efforts from special educators, Vietnam has not yet had a complete special education program for children with disabilities. The special education program issued by the Ministry of Education and Training (2010) focuses on children attending primary school. There is no evidence that Vietnam has a functional education program for children with moderate to severe intellectual disabilities. However, in specialized schools, the number of children with severe intellectual disabilities and multiple disabilities has been increasing.

The BASICS3 Curriculum Framework

In 2001, the Special Education Department of San Bernardino City Unified School District in California, USA, created a curriculum framework to meet the educational and functional needs of students with moderate to severe disabilities. The BASICS3 Curriculum Framework provides a structured format, which documents measurable individual growth towards achieving greater independence and functional skills. As a component of the BASICS3 framework, the DIAMOND Learning Model (DLM), based on decreasing prompt levels moving students towards greater independence, provides a consistent process and common language for use in determining and describing individual student successes and challenges. The BASICS3 Benchmarks assessment provides teachers a method for assessing their students' progress and how to find and develop goals and objectives in the BASICS3 book.

The BASICS3 is organized into five domains: Functional Academics, Domestic, Community, Vocational, and Recreation and Leisure. Each domain is divided into Levels 1–6 based on student's developmental levels and appropriate school grade levels. The DIAMOND Learning Model (DLM) reinforces and supports the BASICS3 and can be applied to any existing curricular framework**.** It is for use at school, at home, and in the community. The DLM uses prompts: physical, gestural, verbal, visual, proximal, and modeling. It consists of 5 prompt levels based on the number of prompts needed to complete a task. The goal is to determine how many, and what kind of prompts, are needed to complete the task and eventually perform the task independently. Progress is determined by how many prompts are needed to complete the task.

The Department of Special Education has recognized the value of BASICS3 and the DIAMOND Learning Model and has taken the opportunity to apply this functional curriculum at the Early Intervention room. The journey to turn hope into reality in Vietnam has now begun.

HCMC University Early Intervention Classroom

The Early Intervention program has a manager who is responsible for overseeing the assessment process, development of IEP goals and objectives, lesson plans, and professional guidance for a staff of three teachers with special education certification. The number of students in the classroom is generally four students, which provides the teachers opportunities for one-on-one instruction as well as group activities. The structure of the 3-hour class is built upon the TEACCH model. In the classroom, you will see visuals identifying the daily schedule, transition times, classroom rules, and domain centered stations, all which support children to know what is expected of them and an environment promoting individual independence and responsibility.

The process of applying BASICS3 and the DIAMOND Learning Model involves an initial assessment conducted by one of the early intervention teachers. Based on assessment results, a student Individualized Education Plan (IEP) is developed by the IEP team consisting of the student, parent, teacher, and program manager and appropriate goals and objectives are written and approved for creating a plan of action. At the end of a given lesson, a daily evaluation is completed for each child. The IEP goals and objectives are reviewed every three and six months and at the annual IEP meeting held.

Professional Development

The strength of the early intervention program has been regular professional development trainings provided by the San Bernardino special educator and the visiting scholar from California State University, Sacramento. The professional training for the teachers began the summer of 2015 and continues to this date with the goal to provide best practices on how to implement the BASICS3 curriculum framework and the DIAMOND Learning Model. The main objective of the professional development designed for the teachers has been for interactive learning by teachers, content knowledge of the BASICS3 curriculum framework, the DIAMOND Learning Model, and the overall consistency of professional development building upon each other in a consecutive manner (Guskey, 2000).

Future Hopes

The Early Intervention classroom has seen positive progress in meeting the functional needs of the students as well as establishing a successful and informative curriculum framework. The staff have also noted that the parents have benefitted from their children's participation in the program by expressing a better understanding and "hope" in the education and training for their children's future. The future goals of the Early Intervention program are to increase the number of children that can attend, involve more parents with their children's education, and to expand the BASICS3 program to more schools looking for a successful curriculum framework leading towards greater independence for their students. In addition to annual follow up trainings at HCMC University of Education since 2015, a recent training was held in the summer of 2018 at Huong Duong Special School (28 participants). The training at Huong Duong Special School was very successful and they have now developed two BASICS3 classrooms using the BASICS3 Curriculum Framework. Thus, the "hope" continues.

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LITERACY FOR LIFE-LONG LEARNING OF PUPILS WITH CONGENITAL DEAFNESS USING PICTURES

Gladys Belinda Babudoh
Wenikado Sylvester Ganagana

Conceptual Framework and Background

Life-long learning is a holistic education, which recognizes learning from different environments throughout one's life time. It embraces learning settings in institutions (formal) as well as non-formal and informal environments such as playgrounds, libraries, hospitals homes, museum, streets, shops, and worship centers. The major activities that can promote achievement in life-long learning are reading, listening, and talking.

Reading, according to experts (e.g., Oyetunde, 2009; Andzayi & Umolu, 2004), is a meaningful interaction between the reader and the author of the text being read. It entails the making of meaning from print which involves the interpretation of sentences. Considering the fact that lifelong learning entails continuous reading and children with congenital and profound hearing impairment are not proficient in reading, it is imperative to equip them with the needed techniques and materials to enhance their reading ability and sustain their interest in reading. Consequently, Ojile (2006) recommended that development of vocabulary should be a continuous activity for children with hearing impairments. Ojile emphasized that the labeling and classification of things should be reinforced. These activities will help in enhancing students' performance in all areas of functioning where language is needed.

Language, which is the means of communication of any given people has four basic sub-skills namely; listening, speaking, reading, and writing. Through language, ideas of the users concerning the environment are represented in the form of signals and/or words. According to Azikiwe (2007) hearing children acquire language intuitively without any specific language instruction from parents and/or care givers; but this is almost impossible for children with congenital deafness.

In Nigeria where most of the parents know very little about hearing impairment, the deaf children are often neglected after identification until much later when they can come up with some crude/local signs to interact with the child. For pupils to learn effectively, they must understand the language of instruction. Most

congenitally deaf children get to school without acquiring even the language of their community on which the school teachers would base their instruction, before introducing the English language. Consequently, children with congenital and profound hearing impairment perform below expectation in all language related subjects so they are often seen as having learning disabilities. Hence, methods used by professionals in remediating the problems of pupils with learning disabilities are often applied with this group of children using sign language Babudoh (2017). The teachers need to use pictures and picture books containing drawings of objects and events along with real objects to encourage the pupils to listen and learn better so that when they are presented with only pictures, they can recognize that the pictures serve as or represent the concrete objects. This implies that the major way to ascertain/assess the listening ability of the individual is through the quality of his/her retelling, the following of instructions and through answering questions. This assessment can be achieved through speaking (for the hearing) and sign Language (for the hearing impaired). In this study therefore, the pupils were invited to observe critically, things and events in all the places at all times throughout the period of the study.

Research

Single subject A-B-A-B withdrawal of treatment design was employed in this study. All the pupils were exposed to the literacy activities for twelve weeks but at each alternative week, pictures were not used. Two postgraduate students worked with ten primary four pupils with congenital deafness on the playground, library, school shop, and in the class. The pupils were each made to draw pictures of what captured their interest which gave the class some news daily. Observation, storytelling, language experience exercises, reading, and writing were employed at every opportunity. These activities were assessed through retellings and production of picture story books weekly. In addition, the pupils described the content of their picture stories in writing.

Results

The listening skills of the pupils were accelerated with the aid of pictures. As they were congenitally deaf, they could neither hear nor talk so observation represented their listening skill, which was encouraged and sustained through the use of pictures. The average student performance on retelling was between 70% and 80% in the weeks where pictures were used in teaching. In the weeks where pictures were not involved in the discussions (story telling), news on the board, and language experience exercises, the average scores were between 50% and 58%. An analysis of the performance showed that each time there was a re-introduction of the use of pictures, their percentage score increased more than those of the previous week.

Also, it was observed that the percentage word recognition performance was significantly less in the weeks where pictures were not used. Similarly, their performance in the drama activities was poorer in all the weeks where pictures were not used. This result was probably because the pupils lacked concrete items to refer to during their practice exercises. These results are in line with the findings of Nicholas (2007) that pictures help in improving the listening skills of children. In addition, the current study revealed that pictures enhanced the reading skills of the pupils. This result agrees with the findings of Calabrese (2010) that pictures help pupils to figure out the meaning of what they are reading.

Recommendations

Pictures are used very often during instruction of children with hearing impairments. For example, even the letters of the alphabet are produced in pictures in books. In most situations children encounter pictures in receptive communication. However, children born deaf should be encouraged to utilize their visual memory by sketching the pictures of things or events/scenes of their interest, which would remind them of experiences and provide basis for discussions in their daily life.

Labeling should be concretised using pictures. For example, even in teaching the names of family members, a picture or sketch of the family members could be drawn with their names clearly written on the individuals. Sign names can then be invented for each of the family members in addition to the fingerspelling of the names. This implies that as the child is introduced to names of people, pets, and objects of interest in the home, school,

shop, and playgrounds the names should be accompanied with printed flashcards for the child to keep and review. These approaches will help to build the deaf child's vocabulary, develop his interest in reading and promote his learning competence in non-formal and informal environments.

Suggestions for Future Research

Future research efforts should be extended to building good experiential backgrounds for the children, emphasizing the observation of similarities and differences in things and situations.
In addition, dramatization of stories by the pupils and written retellings by them will greatly enhance the literacy skills of the deaf pupils.

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EXPERIENCES OF LEARNING ENGLISH BY ADULT STUDENTS WITH VISUAL IMPAIRMENT: SELECTED CASES IN ASTANA, KAZAKHSTAN

Arman Assanbayev

Introduction and Background

There is a growing trend of inclusion of children with special needs into mainstream education in Kazakhstan. This trend of inclusive education is expanding to include not only children but adults too. Adults with disabilities also need meaningful lifelong educational opportunities during their lifespan. Implementation of short time non-formal courses has been thought to be a good solution to educating adults not willing to join such educational institutes as universities, colleges, AND academies with full term programs. Short time courses are more specialized with emphasis on certain skill or knowledge. One of the most wide-spread forms of short-time courses offered by the private schools and tutors is language courses. As a response to the educational needs of adults with disabilities, the government of Kazakhstan has developed a policy for inclusion in the national documents.

Inclusion in education is recognized as a basic human right and a foundation for a more just and equal society. The main principle of inclusive education is provision of fair access without any discrimination and on the basis of equal opportunity to all people within an inclusive education system at all levels. Kazakhstan committed its willingness to move towards the global trend of inclusiveness and facilitating a democratic education system as a signatory in a number of international documents such as: *The Salamanca Statement* (UNESCO, 1994), *United Nations Convention on the Rights of Persons with Disabilities* (2006), *Bologna Process* (MoES, 2013). These commitments showed to the world that Kazakhstan strives to be aligned with the developed and democratic countries implementing inclusive education. The next step after signing international documents is transferring the world experience into inclusive education of Kazakhstan.

The government of Kazakhstan announced further implementation of inclusive education and as a result it developed the State Program of Education Development for 2011-2020 (MoES, 2010). These documents recommended expanding non-formal educational arrangements that could be more inclusive and accessible for people with special needs. While education is being extended to cover these ideals, inclusive teaching and learning in adult centers have not been explored. Therefore, in order to address this gap the following research questions were asked: 1) What are the experiences of students with visual impairment in learning English? 2) Which barriers and opportunities do adult students with visual impairment experience when taught English?

Method

This study used the exploratory type case study design to explore the experiences of adults with visual impairment in learning English within “English for All” language courses located at the National Academic Library of Kazakhstan. Each interviewee is a case with their experience. Various cases showed various views. Yin (2014) suggested that one study may contain more than one single case. Platt (1992) claimed that several such individuals can be regarded as “cases” and several such cases can be regarded as multiple case-studies. The researcher studied several cases to control for the risk that one person’s experience will be biased or limited.

Homogeneous sampling was chosen as an approach for choosing certain sites or people because they possessed certain traits and characteristics. Moreover, these individuals had common traits; visual impairment, similar experience in studying English language, they were mature; because of their disability they belonged to the same subgroup, as a result they often spent time together. Four adult learners with visual impairments were selected for individual interviews.

Results

Three themes were created to present the data extracted from interviews. They focused on: barriers, opportunities, learning English by people with visual impairment. As a conclusion of each theme, the new knowledge is discussed.

Barriers: The findings of present study confirmed that environmental, institutional, attitudinal and physical barriers by Bishop and Rhind, (2011) were a problem for adult learning English in Kazakhstan.

Opportunities: Undoubtedly, the purpose of any education to adults has some perspectives to the future. Adults should know why they study and what future benefit they will have of educational settings (Clardy, 2005). Interviews entirely supported the theory presented by literature; the participants had plans to use English in the future. They were studying English for three reasons: for the promotion of future career, intellectual development, and to be aligned with the language policy of Kazakhstan.

Learning English by people with visual impairment: The findings from this study indicated that only one participant started learning English in formal settings: at school and university. The Kazakhstani context, suggested that English as a school subject was compulsory but only one participant learned English at school. The other participants did not study English at school and they joined a non-formal setting. This confirms the data in the literature that joining the Bologna process had influence on the decision of people of Kazakhstan to study English (Mouraviev, 2012).

Conclusion

The global trend of inclusive education and lifelong education has reached Kazakhstan too. People started to study languages regardless of age and ability or disability. The buildings became more inclusive and accessible further on the educational programs changed to the benefit of all. The concept of education is different worldwide and they seemed to influence Kazakhstan too. As a bright example, all four participants in this study had their education during the Soviet Union but in order to match the demand of the time they started learning English regardless of age. About ten years ago it was strange to see an adult as a subject of lifelong education. As for people with visual impairment, it was even stranger to see them studying English. The situation started to change in Kazakhstan. This study demonstrates that two main tendencies in education are working and developing in Kazakhstan. They are: lifelong learning and inclusive education. Although they are far from being successful, the process is going on and this research is making its contribution to the global movement towards equitable education for all, eliminating any segregation.

The findings showed the weaknesses of implementing lifelong education to adults with visual impairment. They are: low involvement of students into learning process, low quality of teaching process, and weak policy of regulating inclusive education to various stakeholders. “English for all” initiated three years ago, as an agent of change, started implementing these two reforms. As a pioneer of inclusive education in Astana, this research looked on implementation of the reforms through the focus of the representatives of the target group. The concept of inclusive education is growing up engaging more people simultaneously enlarging the scope. The process of inclusion is endless since the world is changing thus bringing new challenges. Such challenges may have implications to widen the scope of inclusive education in the future

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ARTS-BASED THERAPY: AN EFFECTIVE INTERVENTION IN SPECIAL EDUCATION TO IMPROVE SOCIAL AWARENSS

Kashmira Vazifdar

Conceptual Framework and Background

For holistic development, a learner with special educational needs requires supports provided by the family as well as the school in multiple facets of learning. Along with the cognitive and academic development of a learner, one of the important areas of focus should be the child's emotional and social adjustment. Collaborative for Academic, Social and Emotional Learning (CASEL) (n.d.) defines social and emotional learning as a process for children to acquire and effectively apply the knowledge and skills necessary to understand and manage emotions, set and achieve positive goals, show empathy for others, establish positive relationships, and make responsible decisions.

Kolb and Hanley-Maxwell (2003) explored parental opinions regarding the social skills of adolescents with disabilities. Findings clearly showed that although academic performance was important, emotional intelligence, interpersonal and intrapersonal skills, communication, empathy, and moral development were also critical in development. In a study conducted on adolescents with intellectual disabilities Sheydaei et al. (2015) concluded that emotional intelligence training helped to improve the children's communication skills, and so urged teachers, professionals and clinicians to give such training programs a priority in their interventions.

Within the sphere of social awareness, this study focuses on empathy. The Merriam-Webster Dictionary defines empathy as 'the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts and experience of others...' Gallo (1989) defines the concept as one which contains both a cognitive response and an affective dimension. While working with the children with intellectual disabilities and those with autism, they have to be first trained in understanding their own emotions and responses before they are able to develop empathy towards others' emotional state. The current study is based on a module developed by this author, to structure the development of social awareness, focusing on empathy. Arts-Based Therapy provides a play-way, non-judgemental and creative method to achieve this goal.

Arts-Based Therapy (ABT) is a term coined by the World Centre for Creative Learning (WCCL) Foundation, Pune, in 2001. This approach uses the creative arts in consolidation with the Indian Mind Traditions of

introspection, contemplation, and mindfulness. ABT applies arts to achieve the therapeutic function through a gradation of artistic skills, through improvisations that allow innovation and flexibility. An immense part of this theory is derived from the teachings of Gautam Buddha. Here, healing is practiced in a broad manner, as removal or reduction of suffering such as pain, strong attachment or aversion. A flexible mind helps in analysis, reflection, and meditation.

Research

Six students in the age group of 17 to 23 years, three on the autism spectrum and three with intellectual disabilities, were provided ABT interventions across nine sessions (of between 15 to 30 minutes each), six of which were individual and 3three were group sessions. The learners had referrals for the following behaviours: anger and aggression towards peers or family members, teasing and troubling peers, and being insensitive to the feelings of others in their immediate social milieu. The targeted areas for intervention were: learning to label emotions, understanding positive and negative emotions, recognising emotions in self and others, understanding empathy in the form of kindness towards others, and being sensitive and understanding to people in their immediate environment.

The above goals were worked through various creative arts modalities. These included visual arts such as clay work, drawing, and coloring; drama using facial expressions, body work, and role play; mirror exercise, body movement, and movement in a circle helped movement work. Music was introduced through musical instruments, songs and drum circles. To create understanding and mindfulness, deep breathing, visualisation, and meditation were included.

Results

Non-standardized and arts-based tools were implemented to indicate a direction for the results. Some of these are subjective in nature, interpreted through experience and knowledge. Mooli Lahad's (1992) story making method was used as one of the tools of assessment. A story is developed in six parts, namely: the main character; the goal of this character; the person who helps this character; the obstacle in achieving the goal; the resolution of the problem; and the end of the story. The person's coping mechanism can be condensed into six categories of experience, represented by the acronym BASIC Ph: 1) Beliefs and values, 2) Affect and emotions, 3) Social, 4) Imagination, 5) Cognition, and 6) Physical. The study found that students showed an improvement in the areas of affect, socialisation, and cognition, indicating that these are their main coping mechanisms. On the whole, there was minimal use of belief, imagination, and physical activities in the stories they created.

Another tool used was coloring of a body outline given to the students in a pre and post session. In terms of the number of colors used, all, except one student, expressed greater flexibility by using more colors in the post test than in the pre test. With regard to the shades used, all, except one student, showed a shift in the depth of the shades, moving from darker shades to the lighter and brighter ones. Considering the actual colors used, there was a shift from dark green, dark brown and pale cream, to blue, yellow and pink, indicating a sense of calm, happiness, and playfulness.

Storytelling and reflection for the story 'Lion and the Mouse' from Aesop's Fables, clearly showed a greater depth in understanding the concepts of kindness and empathy, as well as awareness of how the learners can be more kind towards others, from the pre to the post level.

Suggestions for Future Research

The current study can be extended to create more intensive modules. Follow-ups can be conducted to help sustain learning and understanding among the learners. Social and emotional learning and training should be an integral part of the curriculum and intervention for all students with special educational needs.

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COPING WITH EDUCATIONAL BARRIERS IN TANZANIA INCLUSIVE EDUCATION SETTINGS: EVIDENCE FROM STUDENTS WITH SENSORY IMPAIRMENT

Sarah Ezekiel Kisanga

Background and Theoretical Grounding

Over time, the Tanzania education system has been constrained by several educational barriers that undermine the quality of education it provides. However, the barriers affect students with Special Educational Needs (SEN) more than their counterparts. The literature categorises educational barriers for students with Sensory Impairment (SI) into two; academic and social barriers (Kisanga, 2017). The academic barriers incorporate pedagogical and resource-related barriers. Social barriers, which include society negative perceptions towards people with disabilities have been cited as one of the main obstacles in the socialisation of students with sensory impairment (Heward, 2013; Kisanga, 2017).

The major pedagogical barrier to students with SI (visual and hearing) is teachers/lecturers' exclusionary practices during the learning and teaching processes (Kisanga & Richards, 2018). Regarding resource barriers, these students have experienced absence and/or shortage of special resources throughout their studies (Kisanga, 2017). Whereas, students with Visual Impairment (VI) have been experiencing scarcity of Perkins Braille machines, Braille papers, typewriters, computers, and other assistive devices, those with Hearing

Impairment (HI) face absence of, and poor quality, hearing aids and other assistive technologies that hamper their access to and participation in education including, among others, teachers' instruction (Kisanga 2017; Mpofu & Chimhenga, 2013).

Informed by the foregoing, this study is grounded in Lazarus' (1991) Cognitive-Motivational-Relational-Theory of coping (CMRT), which holds that coping process is determined by an individual cognitive appraisal of an encounter whether as controllable or uncontrollable. The CMRT of coping involves the following elements: the stressor/s, primary and secondary appraisals, type of coping strategies and outcome of the coping strategy. In this study, stressor(s) include(s) academic and social barriers encountered by students with SI. In the primary and secondary appraisal, students with SI interpret the academic and social barriers they encountered and the coping resources/options available respectively (Lazarus & Forkman, 1984). Whether students with SI chose problem-focused or emotional-focused coping depended much on their interpretation of the situation encountered. Those who interpreted the situation as controllable opted for problem- focused coping while those who appraised the situation as unmanageable utilised emotional-focused coping strategies. Problem-focused coping strategies are action-centred types of coping which act directly to the problem to resolve the situation whereas emotional-focused coping strategies do not focus on the actual problem but rather on the negative emotions associated with the stressful condition (Lazarus & Forkman, 1984).

Methods

The study utilised semi-structured interviews, focus group discussions (FGDS) and open-ended questionnaire to collect data. Twenty-seven students with SI from two higher education institutions were involved in this study to explore the coping strategies they used to overcome educational barriers encountered during their studies. Data analysis was done using thematic analysis where themes and subthemes were developed by looking at the recurring concepts or phrases in the respondents' transcripts (Bryman, 2016).

Results

The findings of the study revealed that students with SI often used problem-focused coping strategies more, to cope with academic barriers they experienced during their education endeavour, than emotional-focused coping strategies. In particular, three coping strategies were reported in this research question: Social support networks, personal efforts and collective efforts. On coping with social barriers, the findings revealed three emotional-coping strategies, which were highly reported by students with SI to manage social barriers encountered: escape-avoidance, distancing and confrontations. Only one problem-focused coping strategy (educating the society) was reported in addressing the social barriers.

Recommendations

Coping with education barriers requires collaboration of efforts from different educational stakeholders including parents, students with and without disabilities as well as teachers. For example, teachers across education levels should acknowledge that supporting students with disabilities is not an extra duty but it is their mandate to ensure conducive conditions that enhance learning and participation to all learners in inclusive settings. Lastly, students with disabilities should perceive impairment as an opportunity to demonstrate their talents and abilities to the society as a mitigation measure to overcome society's negative perception toward people with disabilities that they are *incapable* and *a social economic burden* (Kisanga, 2017).

Suggestion for Future Research

Studies that focus on coping strategies for students with SEN in developing countries like Tanzania are limited. This study suggests a focus on the role of assistive technology in coping with academic barriers to students with disabilities in Tanzania.

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PROFESSIONAL DEVELOPMENT NEEDS OF TEACHERS FOR STUDENTS WITH LEARNING DISABILITIES

Beth N. Oluka

Background of the Study

Teaching students with learning disabilities (LDs) entails that the teachers are adequately trained to effectively handle instruction in core areas of development of the students such as verbal and non-verbal communication, creative play, sensory processing, and social interaction (Bowe, 2004). One of the major challenges of students with LDs is that they have difficulty in understanding and/or communicating their needs to their class teachers or classmates. Another major challenge is that the students mostly have difficulty following classroom instructions along with the subtle vocal and facial cues of the teachers (Wilmshurst & Brue, 2010). They also have some challenges in understanding their peers, which often result in stress and anxiety (Wilmshurst & Brue, 2010). There are several studies on supporting students with LDs in relation to the professional development needs of the teachers to ensure the success of inclusive education (Bowe, 2004), but few have investigated the professional development needs of the teachers. While the issue of allowing the students with LDs to be included in the mainstream schools remains important, discussions and evident in the literature; there is need to investigate the areas that school teachers requires some professional development in to enhance the aims and objectives of inclusive education.

Teaching an individual with LDs can be particularly challenging (Ugwu, 2015); therefore, the teachers may be subjected to consistent training to update their skills and to determine effective strategies for meeting the demands of students with diverse learning needs. Studies have reported that teachers who are not adequately trained may be responsible for the poor performance of the students with LDs in an inclusive classroom (Jindal-Snape et al., 2005). This can be detrimental as most often, students without LDs achieve far better than the ones with LDs in the same classroom. Inclusive education focuses on the learning needs of every student in the classroom irrespective of any form of disability students may have, and the classroom teacher's commitment is to ensure that every student is supported.. This is why this study focuses on the improvement

needs of the teachers to ensure that the students with LDs acquire the right education and perform well in an inclusive classroom setting. Student with learning disabilities may have difficulty reading, writing, spelling, and reasoning, matching or organizing information if left to figure things out by themselves or if taught in conventional ways.

Research Method

The study adopted a mixed-method research approach to facilitate data triangulation, because it involved the integration of qualitative and quantitative research (Creswell, 2013). Another reason for adopting mixed methods research design is that it provides a better understanding of a research problem or issue than a single research design (Jonker & Pennink, 2010). Data was collected through questionnaire administered to 50 teachers teaching in selected special schools for students with learning disabilities in Nigeria. The intention for using the qualitative research design was to get closer to the reality of the research subjects (Rolfe, 2006). Also, the qualitative research methods facilitate capturing of comprehensive and 'information rich' data (Ary, Jacobs & Sorenson, 2010) by allowing the participants to talk about their experiences freely and in details (Creswell, 2013). A focus group of seven teachers among the 50 participants of the study was used to validate responses from the quantitative data to enable an in-depth understanding the improvement needs of the teachers in teaching the students with LDs in a secondary school in Nigeria.

Results

The study respondents pointed out that even though students with LDs have equal rights to be in the same classroom with their counterparts without LDs, the teachers must improve in developing positive attitudes towards having students with LDs in their classrooms. Sixty-five percent of the teachers who participated in the study needed professional development in the understanding and accepting the challenging behaviors of some children in their classrooms. Fifty-eight percent of the study population studied general education, and therefore, require further training in the field of special needs education to be able to teach effectively and support students with learning disabilities. Seventy-two percent of the teachers confirmed that they needed to improve on the use of symbols, and model examples when teaching the students with LDs. Sixty-one percent of the teachers needed improvement in the use of active learning techniques; 77% of the teachers needed improvement in grouping students into smaller numbers to enable them to interact with their peers and construct learning on their own. Eighty-two percent of the teachers needed improvement in providing independent and intensive practices for the students with LDs, while 79.21% of the teachers required improvements in engaging students in process type questions, such as "How is the strategy working?"

Recommendations

This study supports the professional development and adequate training of the teachers in the secondary education system for the success of inclusive education. From the views of the teachers who participated in this study, there was an urgent need to work out adequate plans for the progress of inclusive education by providing adequate training for the teachers. This is in line with Thomas-Jeremy's (2011) assertion that inclusion was introduced prematurely to schools by governments and education policymakers; especially in the absence of adequate teacher training and resources to facilitate inclusion. As the teachers pointed out that they lacked adequate skills for teaching students with LDs, the aims of special needs education may not be achieved without having competent teachers.

Suggestions for Future Research

There is the need to extend the literature base on the systematic investigation of collaborative instructional strategies, such as the use of collaborative learning approaches and the use of other practice-based teaching approach to ensure the success of the students with LDs in diverse classrooms. New areas for further studies may include time factors, curriculum design, and support programs for students with LDs.

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DEVELOPING LIFELONG LEARNING FOR PROFESSIONAL COMPETENCE

A. Lynne Umbarger

Conceptual Framework and Background

The education of competent professionals, whether they are teachers or allied health professionals, has typically focused on evaluation of the competence through recitation, examination, and practicum experience. Webster-Wright (2009) advocated for the term of "continuing professional learning" (p. 704) to describe the need for competence upon completion of one's professional education and ongoing learning for a professional in any field. Achievement goal theorists identify two primary social-cognitive reasons for learning, mastery goals and performance goals, which can be influenced by instructional activities in the classroom.

Students with mastery goals tend to focus on the process of learning while the products or status of learning are most important to persons with performance goals. Having a mastery goal orientation encourages deeper learning for self-improvement or the personal challenge of learning. A student with a performance goal orientation chooses learning to meet a standard set by others or to achieve a grade. Learners do not necessarily adopt one goal orientation with the mutual exclusion of the other goal orientation. Vermunt (1998) identified a concrete processing orientation, particularly relevant to professional programs, which integrates prior experience with classroom learning to focus on its subsequent application in practice.

One aspect of adoption for a particular learning goal orientation is the cognitive learning strategies used by students. Mastery goals for learning are associated with deep processing of the material, more effort, persistence, metacognition, critical skills, and integration of material previously learned with new concepts to establish deeper understanding (Pintrich, 2000; Vermunt & Vermetten, 2004). Students with performance goals are more likely to memorize for a particular test, show helplessness when asking for help, do the

minimum of work to achieve a grade while being focused on their rank in the class, and depend on external regulation for producing assignments (Elliot & McGregor, 2001). An additional strategy is concrete processing used to apply learning to the chosen professional practice (Vermunt & Vermetten, 2004).

The cohort environment in college professional programs, when a group of students takes multiple classes together in a prescribed sequence over time, has been shown to influence peers' learning goal orientation (Hmelo-Silver, Duncan, & Chinn, 2007). It is incumbent on the instructor to understand that their goal-oriented instructional techniques influence the learning goal orientations of students.

The systematic relinquishing of instructor control to student controlled learning appears to be most effective for those students adopting greater levels of self-regulation and deep processing of learning (Vermunt & Vermetten, 2004). Direct instruction can be beneficial when students need to learn factual material; however, the development of creativity, integrating subject matter from different courses, and self-regulated learning seems to occur with cooperative learning and practical application of concepts in practice settings.

Research with Occupational and Physical Therapy Students

In therapy educational programs, students get classroom and practicum education before entering the workforce. Initial classes such as anatomy may focus on knowledge transmission. Later classes require knowledge integration to provide holistic and effective therapy with actual clients. After graduation and initial licensure, many U.S. states mandate continued education. Individuals typically make their own choices for the content and completion of this continued professional learning (CPL). The research of this author has examined longitudinally the goal orientations and strategies for learning with occupational (OT) and physical therapy (PT) students using the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991). Growth curve modeling showed no statistically significant differences in use of mastery and performance goals and the related deep and surface cognitive strategies used by OT assistant students during the first two semesters of their undergraduate education. Statistical analyses similarly showed no significant differences for the same goal orientations and cognitive learning strategy use for two cohorts of OT and PT students during the first four semesters of their graduate level education.

Recommendations and Suggestions for Future Research

Admission committees may not need to avoid initial screening of applicants based on grade point average (GPA), which may be associated with performance learning goal orientations. Therapy students appear to use mastery and performance goals for learning in fairly equal measure during their educational programs. Further research about goal-oriented teaching activities used in professional programs may be warranted to determine any effects on goal orientations and cognitive learning strategies in addition to actual practices for CPL undertaken by graduates. Because the Inventory of Learning Styles by Vermunt (1998) incorporates a concrete processing concept of applying personal experiences and learning in future practice, evaluation of its usefulness should be undertaken with students in fields such as education and allied health. Concrete processing may be more salient with students in professional education programs than the more bipolar concepts of deep and surface processing of educational materials and instructional practices. Further evaluation of instructional techniques could benefit the adoption by students of concrete processing cognitive strategies and the self-regulated learning strategies that will benefit motivation for self-directed continued professional learning.

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DEVELOPING EVALUATION CRITERIA FOR ELEMENTARY TEACHERS OF THE VISUALLY IMPAIRED IN VIETNAM

Nga Hoang Thi

Conceptual Framework and Background

Vietnamese education systems developed later than in many countries in the world making opportunities to inherit the progressive achievements of modern education difficult including in the teacher evaluation area. The Ministry of Education and Training of Vietnam has developed teachers' professional standards at all levels from preschool to high school. These standards are currently being used quite effectively in assessing and grading teachers, especially in improving current teacher training programs in the country (Professional Standards for Primary Teachers, 2007).

However, the evaluation of special education teachers in general, and teachers teaching students with visual impairments, in particular at the primary level in Vietnam, have been faced with many challenging issues. Research results on the current status of assessing teachers of students with visual impairment, which was done by Hoang and Hoang (2017) showed that the primary teachers teaching children with visual impairments had been evaluated by the professional standards for primary teachers not teachers of students with visual impairment and which was original designed for general primary teachers only. This makes the assessment serve administrative and reporting purposes rather than professional development purposes. This is the reason 71.4% managers and 60% teachers who teach students with visual impairment at the primary level in a pilot survey recommended changing the evaluation system for teachers teaching students with visual impairment (Hoang, and Hoang, 2017). Since then, it can be seen that the need to develop criteria for evaluating teachers teaching learners with visual impairment at the elementary school level is urgent.

Research and Results

The set of criteria for evaluating teachers of students with visual impairment at the elementary level has been developed by the seven-step process noted: 1) Forming an expert team to build the set of criteria. The expert team should include both experts in education for blindness and in educational management as well as educational evaluation. Accordingly, the group gathered seven members including one expert on educational assessment and quality accreditation, two experts on visual impairment, and four experts who were studying in education management. 2) Referring to domestic and foreign experiences. The authors refer to the

Occupational Standards for teachers of students with visual impairment in the State of North Carolina, U.S.A. (North Carolina Department of Public Instruction, 2018); Standards on Professional Practice Competency of Vietnamese School Teachers for Inclusive Education of Children with Disabilities, which was developed by Nguyen, Le, and Yusuke (2016) and Occupational Standards of Primary Teachers (2008) of the Ministry of Education and Training. 3) Determining the purposes of developing the set of criteria based on the purposes of the professional standards of primary teachers and the real needs of special education in Vietnam. The set of criteria is aimed at two main purposes. One is the professional development for teachers through the teacher self-assessment process and the managers' assessment and is the basis for training institutions to adjust the training program for special education teachers and the second is to make decisions regarding salary and career advancement. 4) Developing a draft set of criteria including two areas of quality and capacity, in which, the quality area includes two criteria, concretized into eight criteria and capacity area includes eight standards, concretize into 32 criteria. The total set of criteria includes 40 criteria, each criterion consists of two indicators, and each indicator has three levels of assessment from basic to advance. The overall score and the accompanying conditions will be the basis for grading and fostering professional skills for teachers. The guidelines to use the set of criteria are also attached. 5) Gathering comments for the set of criteria through organizing workshops. There were more than 50 participants including educational evaluation experts from the Vietnam Institute of Educational Sciences, managers of institutions for students with visual impairment and teachers who were teaching primary students with visual impairment attended. After acquiring comments and making corrections, the set of criteria remains the same in the two areas of quality and capacity but decreases to nine standards and 34 criterions due to elimination of overlapping content. 6) Experimenting using criteria to assess teachers at two educational institutions for blind students with the largest number of primary blind students in southern provinces. Two managers and 13 teachers were instructed how to use the set of criteria. Two weeks later, the managers and the group of teachers were interviewed in order to provide comments and suggestions to make the set of criteria better. A summary of the comments to be reviewed has been recorded and saved so that the authors continue to update the set of criteria. 7) Editing, updating the set of criteria. The data from a pilot survey and test using the criteria for evaluating teachers teaching students with visual impairment has shown that two of the two managers and 13 of 13 teachers think that the process of using the criteria is quite clear and easy to understand due to inheriting the process of assessing general primary teachers which was used annually. The set of criteria's content generally reflects the number, volume, and quality of teachers teaching students with visual impairment, so they can be used to measure the professional capacity of teachers and help teachers develop their expertise. The structure of the criteria set still retains two areas and 34 criteria but needs to be modified in addressing some criteria, indicators, evidence, etc.

Recommendations

The set of criteria is the first special education teacher evaluation system built in Vietnam and has not been tested in a large population, so the author suggests: 1)Schools where children with visual impairments attend programs should use the set criteria set to evaluate primary teachers and continue to suggest ideas for improving the criteria. In the short term, schools can use the set of criteria to assess teachers as a basis for planning professional development for teachers, thereby improving the quality of education for students with visual impairment; 2) Teachers of primary students with visual impairment should use the criteria to self-assess and plan for improving their professional competencies; 3) The special education teacher training units can refer to the set of criteria to determine and adjust the initial special education teacher's standards in training programs; 4) The Department of Education and Training needs to research and develop documents to direct and allow special education schools to use the criteria to assess teachers teaching students with visual impairments at the elementary level.

Suggestions for Future Research

The set criteria was only surveyed in a narrow range with small research sample. In the future, it is necessary to carry out a long-range research with the largest research sample possible because currently the educational settings (institutions) for children with visual impairments are getting smaller because the number of children with visual impairments has decreased. In addition, the short survey results have not ensured the reliability and validity of the criteria. Therefore, the next study should be aimed at this goal too.

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EXPLORING ISSUES RELATING TO 24-HOUR PROVISIONS FOR CHILDREN WITH SPECIAL EDUCATION NEEDS IN SELECTED EARLY YEARS SETTINGS IN GREATER MANCHESTER IN THE UNITED KINGDOM

Olanrewaju Bola Jegede, Ph. D.

Conceptual Framework and Background

Twenty-Four-hour Provisions in the United Kingdom for children with Special Education Needs (SEN) could be traced partly to judicial injunctions that compelled education providers to devise strategies for extending learning opportunities for students beyond mandatory school hours. The concept is premised on the maxim that ''An extended school maximises the curricular learning of its pupils by promoting their overall development and by ensuring that the family and community within which they live are as supportive of learning as possible'' (Smith, 2004, p. 3).

Need for the Study

The lofty aspirations of 24-hour provisions have however, not snowballed into unearthing issues that are pertinent to 24-hour provisions for children with SEN in early childhood settings. This precipitated the resolve to explore and identify some issues that are important to 24-hour provisions for children with SEN in early years settings.

Research

A three-part questionnaire was developed and used to sample the perceptions of early years staff regarding the level of importance of some selected issues in designing and implementing 24-hour provisions for children with SEN in early years settings. The internal consistency of the items contained therein was assessed by way of Split-half reliability statistics (0.87). Similarly, the stability of the instrument over a period of six weeks by

a test-retest reliability statistics (0.8%) indicates that the instrument was stable over a reasonable period of time. Frequency and percentage distributions were used in analysing the data. The sample consisted of seventy-one respondents (59.1% of total population) drawn from thirty ''I CAN'' Early Talk accredited settings in an urban area of Greater Manchester, UK.

Results

The following issues explored in the study were perceived by almost all the respondents to be of average and above average importance in designing and implementing 24-hour provisions for children with SEN. The issues were structured into a 24-hour Curriculum Issues Competency Assessment Questionnaire (24-hr CICAQ). It is envisaged that the 24-hr CICAQ would be useful for training purposes.

The Issues

Knowledge of Every Child Matters Provisions of 2003
Importance of section 324 of the Education Act of 1996, i.e. Statementing, placement, etc
Judicial Perspectives of 24-hour Provisions and Awareness of CWDC Standards
24-hour Provisions as Inclusive Education Strategy
Early Years Action, Action Plus, CAF Procedures and Behaviour Management Strategies
Knowledge of Specific Special Education Needs Conditions
Knowledge of Early Years Foundation Framework
Understanding Process of Special Education Needs Statementing
Knowledge of Relevant Government Legislations
Easy Access to Training Opportunities and Variants of Inclusive Provisions
Effective and Efficient Government Control and Parents' Involvement
Involvement of Regulatory Bodies and Adequate Funding
My Personal Opinion of Inclusive Provisions and Barriers to Achievement Provisions
24-hour Provisions vis-à-vis Social Integration

Directions of Early Years Education for Children with SEN in the UK

The Children and Family Bill (2014), the Human Rights Act (2010), the Extended School Provisions (Cummings et al., 2004), and the United Nations Conference on the Rights of the Child (1989), all combine to strengthen children's rights to mandatory educational opportunities irrespective of their abilities or disabilities. There have been government policies and regulations in the last two decades geared towards growing formidable early years education. The ''Every Child Matters Provisions of 2003'' are intended to assist children achieve five outcomes among which are that every child should stay safe, be healthy, and enjoy economic well-being in adult life. The Early Years Foundation Framework sets the guidelines for ''Every Child Matters Provisions".

The 2003 Ofsted Report titled ''Good Early Years Provisions for All'' seems to signal the future direction of early years education in the UK by aligning inspection reports of early years with those of schools and colleges. The report also hints that parents are not happy with some nurseries. While the then children minister and the Ofsted Inspector seemed to be pushing for school-based teacher-led structured learning experiences for early years beneficiaries, a survey report carried by a national daily Manchester edition of Metro Newspaper of 15th April, 2014, revealed that teachers in Kent and Yorkshire opined that structured learning for children should not start until age five. However, it might be good professional judgement for early years personnel to devise means of engaging parents of children with SEN more actively in their settings' activities as prescribed in the early years Foundation Framework and the 1996 Education Act.

Recommendations and Suggestions for Further Study

The direction of early years education in the UK favours all strategies that can assist all children in general and children with SEN in particular to achieve their potentials. The ''Extended School'' campaign by government agencies stipulates the framework for inclusive programs to assist children who are lagging

behind their peers. 24-hour provisions might be the panacea to remedy the situation. Hence, good grounding in issues pertaining to 24-hour provisions is suggested as a pre-requisite for effective design and implementation of 24-hour learning experiences for children with SEN in early years settings. Future research efforts therefore, should focus on standardising the 24-hour CICAQ developed in this study

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SERVICE DELIVERY OPTIONS FOR STUDENTS WITH PHYSICAL AND HEALTH IMPAIRMENT IN AN INCLUSIVE SETTING IN NIGERIA

Ya'u Musa Dantata
Ali Tijjani Abdullahi

Conceptual Framework and Background

Aserlind and Browning (1987) asserted that a service delivery system is a systematic design of providing individuals with special needs with the most appropriate programs. However, this implies that each exceptional condition requires a specific program of service delivery system that could help in the educational intervention of the specific condition. This assertion clearly explains the significance and meaning of the concept of service delivery system to the exceptional child. In other words, appropriate placement of a child with special needs is paramount. But this provision is yet to be realistic in practical terms. According to Aserlind and Browning (1987), the focus of service delivery systems includes the following factors: 1) Physical location of the school; 2) Provision of different educational goal, objective, activities, skills, etc., to the exceptional child; 3) Provision of compensatory methodology; 4) Provision of individual instruction; and 5) Provision of therapeutic processes.

Importance of Service Delivery

According to Browning (1986), the major purpose of the service delivery system is geared towards providing students with the following: 1) access to education irrespective of the child's condition; 2) an equal education opportunity the same as provided to the child without exceptional needs; 3) freedom of social interactions, social service, and socialization process as any other child irrespective of his/her disabling condition; 4) service delivery to enable students with physical and health impairment to attain and maintain their maximum independence, full physical, mental, and vocational ability; 5) through inclusion service delivery to promote the efficiency of the residual ability and hence the quality of life; 6) contributes to students with physical and health impairment achieving and maintaining optimal functioning in interaction with their environment, through improvement of function and maintenance of new trend.

Service Delivery Options and Practices

An Inclusive Service Delivery and Practices Leadership Team (ISDPLT) addresses the overall implementation of inclusive service delivery across the entire school. The team should be made up of individuals within the school who function as leaders. The team does not have to be a new team; an existing leadership team may simply take on the function of an ISDPLT. This team should identify a set of principles and beliefs that will govern a school-wide inclusive focus. The principles and beliefs should include: 1) All students can learn (even if not in the same way nor within the same timelines); 2) All students have a right to quality instructional programs that help them progress; 3) All students belong to all staff (all staff taking ownership for all students); and 4) Everyone (administrators, teachers, paraeducators, support staff, cafeteria staff, custodians, security, clerical, etc.) focuses on supporting all students in all school environments.

Recommendations

Based on this discussion, the presenters recommend the following points in order to enhance effective service delivery for students with physical and health impairments. First, the Nigerian government should provide fund, materials, and logistic that the policy requires guiding special education in Nigeria and to what extent does it commit itself to the modalities of the policy, in enhancing teaching and learning for students with physical and health impairment. Secondly, to provides a policy that should be inserted in the National Policy on Education on students with physical and health impairment. Thirdly, the government should provide all the necessary equipment and materials that will help the students in the school in order to minimize their over dependency. Finally, non-governmental organizations should support students with any related services, equipment, and materials that will enhance teaching and learning for students with physical and health impairment.

Conclusion

Service delivery options is a generic term used in special education and rehabilitation sciences to offer a wider range and variety of alternative programs, formal and informal, to ameliorate the difficulties or challenges confronting people with exceptional needs, which includes students with physical and health impairment. Through collaborative effort between families, schools, and relevant teams of professionals, effort are continually being attempted to identify, challenge, and conquer the predicaments of students with physical and health impairment to live relatively productive lives.

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Teaching Music In A Full Inclusion Classroom: Does It Work?

Carolyn A. Lindstrom
James Villegas

Conceptual Framework and Background

When the Individual with Disabilities Education Act of 1990 (IDEA) was first passed, it established new guidelines and standards for teaching students with disabilities. Upon its continued reauthorization, Congress determined that an educational system was now in place that could effectively address the needs of students with disabilities within the general education setting, therefore maintaining "…high academic standards and clear performance goals for children with disabilities, consistent with standards and expectations for all students in the educational system" (Gordon, 2013, p. 62) The expectation was that these standards and goals were to be provided in the least restrictive environment, allowing students with disabilities the same access to curriculum as students without disabilities (Lindstrom, 2017).

Placement of students with disabilities in inclusive classrooms has increased steadily since the authorization of IDEA in 1990. Almost a decade later, the number of students with disabilities in general education classrooms "…rose from 20.7% to 42.4% in 1998 (Alquraini, 2012, p. 42) As of 2016, the percentage rose to 62.2% of students with mild to severe disabilities being placed 80% or more of the school day within a general education class setting. (U.S. Department of Education, 2016).

There are numerous benefits for students with disabilities when placed in an inclusive classroom setting. These benefits are in the areas of academic, social and communication. The research indicated that students with disabilities improved their academic skills, in reading and math, more when engaged in cooperative learning groups with their non-disabled peers. (Alquraini, 2012, p. 46) The same research also indicated that students with and without disabilities "…experience a higher level of interaction …than students with severe disabilities when placed in separate classrooms" (Alquraini, 2012, p. 46). Communication skills also improve for students with disabilities by "…establishing relationships with their typically developing peers." (Alquraini, 2012, p. 46). The benefits combined indicate a positive result for students with and without disabilities.

Students with disabilities are accessing all areas of curriculum, especially music, as it is easily accessible and has proven to provide essential learning benefits for students with disabilities. In fact, music, or music therapy, "…is seen by music therapists as a useful contribution to the education of students with special needs" (Stephenson, 2006).

Research

This study was to determine if a fully inclusive music program for students with and without disabilities, when given the opportunity to learn and perform music together, could create relationships and extinguish prejudices and labels of students with disabilities. If achieved, this study would help create a culture of inclusion within the school and lead to the creation of similar classes in other schools and school districts across the U.S., and possibly in other countries.

For the purpose of this research, a mentor-student relationship was created amongst the students in the classroom. Students without disabilities were "mentors" to students with disabilities ("students"). Mentors and students worked together to develop the class structure. Through this collaboration of students, the project moved beyond the classroom walls and provided multiple public performances throughout the school year for the school community, including public performances for the whole community.

In this practitioner-research, a Full Inclusion music class provided a bridge for the interaction of students with and without disabilities and enabled students to engage in a common learning activity that encouraged them to develop relationships to work together for a common purpose, that is, performing in front of an audience. The effect of this innovative program was examined using data from student survey, teacher observations, and student reflections.

Results

Results of the research project were determined from three sources - Student Survey, Teacher observations, and student reflections. Students' responses to questionnaire items indicated positive effects of the inclusion program. On the familiarity and comfort levels of regular students toward students with disabilities, self-ratings increased dramatically after the inclusion program was implemented. Before the first day of school, 3 (13%) students were extremely familiar/very familiar of students with disabilities. As well as 4 (17.4%) of students were extremely/very comfortable with working with students with disabilities. Compared to Winter Break where 20 (87%) were extremely/very familiar. The increase in the rate of familiarity (extremely and very) from less than 20% to about 87% of the students after the inclusion program is remarkable.

By Winter Break, 4 (17.39%) of students still wanted to be Peer Mentors in the music class and it was the exact class they wanted. Before the inclusion program, there were 3 (13%) who wanted to be peer mentor, as compared to 13 (56.52%) after the program, again showing the increased rate in the willingness to be Peer Mentors after the program.

When asked peer mentors if , they would want to be a Peer Mentor again in middle/high school, only 8 (34.78%) said Yes, whereas 15 (65.22%) said No. Overall, the research outcome was very positive, suggesting that the music inclusion program should continue. Learning from the current practitioner-research outcome, the program will be improved constantly.

Suggestions for Further Research

Futures research efforts should include a longitudinal study of those students without disabilities, entering high school, and evaluate if their positive attitude towards students with disabilities continues with their interactions with their peers. Additionally, further research on the impact of learning music and the development of the brain in students with severe disabilities is needed. Research should be focused on improved cognitive functioning and the transfer of skills to other areas of learning.

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EMPOWERING PEOPLE WITH DISABILITIES: PARENTAL INVOLVEMENT

Daramola Martina Onyeka

Conceptual Framework and Background of study

Empowerment of people with disabilities requires collective responsibility by all stakeholders involved in their education and welfare of which parents are an integral part. The global awareness on inclusive education and human rights has increased the interest of parents, school administrators and schoolteachers on the need to sustain inclusive education through collaboration and cooperation for the purpose of developing a resilient inclusive society. The synergy between the Sustainable Development Goal 4 to people with disabilities and the need for parental involvement in the creation of resilience inclusive education and society can be seen as a tool for their empowerment. This study looked at the link between the enabling systematic structure created by the sustainable Development Goals and the need for collaboration, cooperation between parents, and school administrators in actualizing an inclusive society through inclusive education with empowering persons with disabilities being the main objective. Henderson and Berla (1994) argued that the involvement of families is to the benefit of the schools as it increases the morale of teachers in relating with learners. This has further helped the parents to learn more about the nature of the needs of their children.

Epstein's (2008), six dimensional model of family, helped to focus and tighten the definition of parents' involvement in the education of their children. The model covers parenting, communicating, volunteering, learning at home, decision making, collaboration, and cooperation with the community. It upholds that parents' involvement in their children's learning enhances children's academic achievement, intellectual skills, and motivation to study.

Research Scope and Objectives

This research compared parents' and school administrators' views on the responsibility of schools to support parents' involvement, and the strengths and weaknesses each group had regarding their interaction. Qualitative methodology, was applied and Epstein's six dimensional model of family involvement (Epstein, 2008) was used as a theoretical basis. This model supports the contribution of parents' involvement to their children's academic performance and social adjustment, viewing teachers as professionals entrusted with creating definite communication with parents and developing a variety of goal oriented partnership programs that will benefit all families. A six question research protocol was constructed by the researcher to represent the knowledge of the major stakeholders on Sustainable Development Goals, the administrators' attitude towards the need to involve parents, the parents opinion on the need to work with the school for better academic performances of their children, and the need for inclusive education as a key to empowering people with disabilities for the achievement of a resilient inclusive society.

Methodology

A semi-structured interview using a six open question on informing school administrators/teachers and parents about inclusive education and empowerment of people with disabilities was conducted in fifty senior secondary schools. A single teacher, an administrator, and two parents were recruited from each school resulting in 50 teachers, 50 administrators and 100 parents, all from Kuje Area Council in the Federal Capital Territory of Nigeria-Abuja, participating in the study.

This study availed them with the need to collaborate and they saw the need for a synergy between the stakeholders to work together to create an enabling environment for the empowerment of people living with disabilities, using all workable instruments. Though, the parents did not know much about the Sustainable Development Goals, they desired to be educated on that. However, the parents and the school principals expressed their reservations in different areas of the inclusive educational process.

Research Instrument and Data Analysis

The study used the qualitative approach using a semi-structured open questionnaire, which enabled the respondents to expand their answers, through the use of examples and more clarifications. The questionnaires were designed, administered, and analysed in accordance with the purpose of this study.

Summary of Research Findings

Collaboration between parents and school administrators is gaining ground, shifting from a regimented, bureaucratic model with little or no parental involvement (Friedman & Fisher, 2002), to a recognition of parents as significant factors in the children's education. It was discovered that parents and the school principals had their reservations in different areas of inclusion. The parents though optimistic to getting relief, expressed fear of the frustration associated with taking care of children with disabilities while the school principals feared the pressure that would come on them if positive cooperation and political will among other factors were not received. School administrators and parents agreed that parental involvement in school management and education of children with special needs was very important if they must live a fulfilled life.

Recommendations

It is recommended that in the schools where children with special needs are found, the schools administrators should be professionals in the field of special education for more understanding between the schools and parents.

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YOUNG ADULTS WITH COGNITIVE DISABILITEIS AND THEIR PARENTS' PERCEPTIONS OF COLLEGE TRANSITIONS

Derek B. Rodgers
Suzanne Woods-Groves
Jo M. Hendrickson
Karen Sealander

Conceptual Framework and Background

The college experience has been shown to have long-term cognitive and psychological benefits that help the transition to adulthood (Hart, Grigal, & Weir, 2010; Mayhew et al., 2016; Neubert & Redd, 2008). In recent years, there has been an increase in the number of postsecondary opportunities for students with cognitive disabilities (Neubert & Redd, 2008; Think College, 2014). These postsecondary programs have the potential to improve students' independence and quality of life (Hughson, Moodie, & Uditsky, 2006). However, students with disabilities and their postsecondary experiences are underrepresented in the higher education literature (Hendrickson, Therrien, Weeden, Pascarella, & Hosp, 2015).

Hendrickson, Woods-Groves, Rodgers, and Datchuk (2017) examined transition-related data for eight students with autism spectrum disorder (ASD) and their parents. The data was collected from a transition survey administered at the end of the students' first and final semesters in the postsecondary program. The results suggested that both students with ASD and their parents had, overall, positive perceptions of postsecondary program. Parent ratings were significantly higher than students' in several areas, indicating that parents sometimes had a more positive perception of their students' experiences. The results provide unique insight into the transition-related experiences of students with disabilities in and out of postsecondary programs, but further research is needed.

The purpose of this project was to follow-up on the results of Hendrickson and colleagues' (2017) study by examining the transition-related data of students with cognitive disabilities more broadly. This investigation was guided by two research questions: 1) What are the perceptions of students attending a postsecondary program for students with cognitive disabilities and their parents regarding the transition to and out of college? 2) What are the differences between student and parent perceptions?

Method

Participants. One hundred and ninety three (193) individuals responded to two surveys. One hundred and one (101) students with cognitive disabilities and 92 parents participated. Sixty-one students were male, and 40 were female. All students were full time students enrolled in a two-year postsecondary education program for students with cognitive disabilities at a large Midwestern university. Program features included on-campus living in a residence hall with traditional students, participation in university-wide student clubs and organizations, coursework with traditional students, and person-centered planning for individualized goals.

Instrument. All participating students and their families completed the College Adjustment Program Evaluation Scales (CAPES; Hendrickson & Woods-Groves, 2010) survey at the end of semesters one and four. The CAPES is a Likert-scale instrument with 37 items that measure an individual's perceptions across five domains: Student Life (SL), Emotional Adjustment (EA), Independent Living Skills (ILS), Interpersonal Relationships (IR), and Self-Advocacy (SA). Participants rate each item with one of four possibilities (i.e., 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). Families and students voluntarily participated in the survey. Assents and consents were gathered in the fall semester in accordance with the approved Institutional Review Board process. Families were mailed the CAPES surveys and/or responded to online surveys, and students were given the surveys in small groups with the assistance, as individually needed, by volunteers or program staff.

Analysis. Data were analyzed using R 3.5.2 (R Core Team, 2018). We compared students' first and last semester responses to their parents' responses. We used a series of one-way ANOVAs to evaluate the responses for significant differences. Group membership (i.e., students or parents) served as the independent variable, and the five CAPES dimensions were the dependent variable. We conducted post-hoc analyses at the item level for significant differences between student and parent ratings on any of the 5 CAPES dimensions.

Results

Preliminary data analysis show that students and their parents rated the postsecondary program positively overall (i.e., averages greater than 3.0 out of 5.0 on all dimensions). However, parent responses were generally higher and less variable than student values, and the one-way ANOVAs revealed significant differences across four CAPES dimensions at both the first and fourth semesters.

Summary and Conclusion

We compared the perceptions of young adults with cognitive disabilities and their parents across five dimensions of the CAPES at students' first and last semester of a postsecondary program. Student and parent ratings were positive overall, suggesting that students with cognitive disabilities successfully transitioned into and out the postsecondary program. The positive ratings for the SL, EA, and ILS dimensions specifically provide evidence that the program was a good fit for students with respect to transition supports and the college campus experience. These results also suggest that the program was a good fit for the individual students. Parents' perceptions were often more positive than their students' ratings, which may be due in part to the fact that parents were not privy to the day-to-day challenges students faced.

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EXPLORING THE CULTURAL APPROPRIATENESS OF SELECTED INFORMAL READING ASSESSMENT TOOLS WITH SECOND LANGUAGE READERS (L2) AT THE BASIC SCHOOL LEVEL

Florence Akua Mensah
Anthony Kofi Mensah
Tiece M. Ruffin

Background to the Study

As part of its out-of-school reading services, the Special Education Reading Resource Center/Library in the Department of Special Education of the University of Education, Winneba (UEW), Ghana, has a mission to conduct diagnostic assessment in reading in order to design, develop, implement and evaluate various reading interventions at the center. However, since its inception in 2006, it has always employed a locally made sight word test battery (hundred high frequency words) for assessing word recognition. This makes it difficult for resource persons at the center to determine the baseline performance of pupils so as to serve as a benchmark for examining what change is triggered by the reading intervention.

Different reading tests measure different reading subskills: oral reading, reading comprehension, word attack skills, and word recognition (Pierangelo & Giuliani, 2012). The purpose of this study was to explore the appropriateness of the selected informal reading inventory (IRI) in assessing second language learners at the said center. The piloted IRIs included the Stieglitz Informal Reading Inventory (SIRI) and the Bader and Language Reading Inventory (BLRI), which are criterion-referenced tests, whereas curriculum-based assessment tools comprised sight words, running records, and the maze.

In administering the test tools, both the SIRI and the BRLI were used to examine reading behaviors in word recognition and reading comprehension (Stieglitz, 2002; Bader, 2002; Bader, & Pearce, 2013). The Dolch Sight Words were used because these words are used frequently in reading and writing and it is important that readers are able to recognise them quickly without having to sound them out. As stated in Hosp, Hosp and Howell (2016), the running record was used to determine accuracy and level of pupils' reading, whereas the maze test was useful for monitoring pupil progress and to provide reasonable predictions of reading comprehension. The passages for the running records and the maze tests were selected from the Ghanaian basal readers and were tested using the Fry readability formula to ensure that they meet the grade level of the pupils.

Research

At the University Practice South Inclusive Basic School in Winneba, Ghana, 12 pupils were purposively selected from classes 3, 4, and 5 (four from each class) to undergo different types of reading assessments. Over a 3-week period, which started from March 12, 2018 and ended on March 26, 2018, class 3 pupils were administered five types of tests – Stieglitz Informal Reading Inventory (SIRI), Bader Reading and Language Inventory (BRLI), Running Records, Maze, and Sight Words while class 4 and 5 took all the tests with the exception of Sight Words. The 12 pupils were coded with letters of the English alphabet. Accordingly, letters *A-D* represent class 3 pupils, letters *E-H* represent class 4 pupils, and *I-L* represent pupils from class 5.

Results

The SIRI was administered to class 3 pupils; *A* and *D* read at instructional level, while *B* and *C* could not complete the task. After taking the BRLI, all 4 pupils read at instructional level although pupils *A* and *D's* performance was better than the other two. For Running Records, pupil *D's* performance was at grade level while the rest dropped to instructional level with pupil *A* having the highest score. Pupils *A, B* and *C's* performance on the Maze remained at instructional level, and pupil *D's* performance also remained at grade level. On the Dolch sight words, pupil *A* and *D's* scores indicated an independent level performance at grade level while pupil *B* and *C* were also at instructional level each. These results suggest that 2 pupils were above average while the remaining 2 pupils were below average across the assessments administered.

Results of class 4 pupils indicated that *G* and *H*, at separate sections, could not complete the SIRI at grade level. Pupils *E* and *F* became frustrated at two grades below their current grade levels, respectively. Although pupil *E* and *F* had the highest scores on BRLI, all the 4 pupils read at frustration level at one grade below their actual grade levels. In both the Running Records and the Maze tests, pupils *G* and *H* could not complete their tests at grade level. However, pupil *E's* performance was at instructional level whereas *F's* was at frustration level. The performance of pupils *E* and *F* in the Maze was similar to their Running Records results in that the former completed the test at instructional level while the latter was at frustration level.

With respect to Class 5, pupils *I* and *L* could not complete the SIRI; however, while *J's* performance indicated frustration level, *K's* performance was independent at grade level. Results from the BRLI portrayed pupil *K* at instructional level at one grade below his current grade level whereas the rest performed at frustration level. For the Running Records, pupils *I* and *L* could not complete their tests. Nevertheless, the performance of pupils *J* and *K* was independent at grade level. Finally, apart from pupil *J* who read at independent level in the Maze test, the rest of the pupils' performance was at instructional level with the exception of pupil *L*, whose performance was at frustration level.

Recommendations

Curriculum-based Ghanaian reading materials should be evaluated by Curriculum Research and Development Division (CRDD) - Ghana with well-known readability formulas before their use to match the grade level of the pupil. Informal, curriculum-based assessments, such as the Maze and Running Record techniques, using Ghanaian text/readers are better predictors of reading strengths and needs in the Ghanaian cultural context than criterion-referenced tests. Teachers should be equipped to design reading instruction to meet the individual reading needs of the pupils, and pupils should be encouraged to become familiar with basal readers and make reading a hobby.

Suggestions for Future Research

Future research efforts should focus on ascertaining the appropriateness of the criterion-referenced tests for Ghana since they have been globally tested and proven to be reliable. In addition, further research should be conducted on a larger sample of Ghanaian pupils across the administrative regions by the Special Reading Resource Centre/Library.

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KNOWLEDGE AND ATTITUDE OF PARENTS TOWARDS VOCATIONAL EDUCATION OF STUDENTS WITH INTELLECTUAL DISABILITIES IN NIGERIA

Olubukola Christianah Dada

Conceptual framework and background

Students with intellectual disabilities experience difficulty in academic subjects due to the level of their intelligence and retention capacity. In as much as they need to live a successful life the acquisition of vocational skills could enable them to achieve independence, self-reliance, and empowerment. Life could be more meaningful when students with intellectual disabilities are gainfully engaged rather than spending most of their years in the schools without achieving maximally. The trend today is towards the acquisition of entrepreneurial skills alongside academic prowess; hence, students with intellectual disabilities should also be involved. The notion of white collar jobs is paramount in Nigeria and most parents want their children to attend schools to attain the academic certificates, which is seen as a means to an end. Based on this, the researcher aims at determining and ascertaining the knowledge and attitude of parents towards vocational skills acquisition for students with intellectual disabilities in the Ilorin metropolis of Kwara State, Nigeria.

Vocational education is education that prepares people to work in various jobs such as a trade, a craft or as a technician. Gomez Santoz (2016) noted that vocational training contributes to the global development of persons with intellectual disabilities and favors their professional inclusion and as a result can lead to sustenance, autonomy, and a decrease in the need for assistance and support. In a similar study carried out by Adewale, Amgbari, Erebor, Tipili and Ejiga (2017) it was deduced that parents preferred courses that have better recognition and acceptance than vocational education. Okocha (2009) found that parents recognize the employment values inherent in vocational education but they were still preferred to accept the superiority of socially prestigious and white-collar professions over technical related occupations.

Griffin, McMillan, and Hodapp (2010) investigated the issues that families consider when making decisions regarding postsecondary education (PSE) for young adults with intellectual disabilities. The 108 respondents were generally positive about PSE programs, they reported that educators' attitudes were less supportive. Respondents identified many barriers that prevented their understanding of PSE options, but lack of information and guidance was the barrier cited by most respondents. When considering PSE options, respondents were most concerned about student safety, and they considered a focus on employment to be the most important program component.

Research

In this study, two research questions and one hypothesis were generated. The descriptive survey research design was used to carry out the study. The population for the study comprised parents of students with intellectual disabilities in special and inclusive schools in Ilorin metropolis of Kwara state. Two hundred and fifty parents were randomly selected. The parents are expected to select the appropriate columns to determine

and ascertain the knowledge and attitude of parents towards vocational education of students with intellectual disabilities. The study also aimed to determine the relationship between the knowledge and attitude of parents towards vocational education of students with intellectual disabilities in Ilorin metropolis. The questionnaire contained two sections with 20 items on a four point Likert scale. The questionnaire was validated and 0.78 reliability coefficient was obtained. Mean, standard deviation and multiple regression were used for analysis.

Results

From the analysis of data gathered, it was revealed that most parents had knowledge of the need for vocational education of students with intellectual disabilities. Parents had a positive attitude towards the acquisition of vocational skills of students with intellectual disabilities. This positive attitude could be a result of the need for independence, self-sufficiency, and empowerment of students with intellectual disabilities. There was significant relationship between the knowledge and attitude of parents towards vocational education of students with intellectual disabilities. This implies that parents agreed that students with intellectual disabilities could engage in vocational skills such as sewing, carpentry, poultry keeping, shoe making, bead making, and catering.

Recommendations

There is need for educational planners (e.g., government, school administration, special educators, school proprietor/proprietress, and so on) to introduce vocational skill training to the curriculum of students with intellectual disabilities. Regular workshops should be organized for teachers and other caregivers on how to teach and train students with intellectual disabilities in vocational skills. Artisans could also be invited to the schools to give a helping hand to parents and teachers on vocational skills. It is also important that parents should observe their children in order to identify their interest in the area of vocational skills.

Suggestion for Further Study

Based on the findings of this study, there is need for further study to be extended to all categories of students with special needs in Kwara State. Also, the study can be replicated in other special and inclusive schools in other State in Nigeria.

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AWARENESS AND KNOWLEDGE TRAINING ON AUTISM FOR SPECIAL EDUCATORS IN TANZANIA

Amanda A. Martinage
Nilofer Naqvi

Autism exists in every country and region of the world, and occurs in all ages, ethnicity, and socio- economic groups (Muhle, Trentacoste, & Rapin, 2004). Africa is an area of the world in which research related to autism is not readily available; however, an increase in research has occurred recently (Abubakar, Ssewanyana, de Vries & Newton, 2013). Despite the increase, there is no known prevalence rate for autism in Tanzania (Manji & Hogan, 2013). This may be due to having only one diagnostic facility to serve the entire country as well as the lack of resources available to caregivers to bring their children for evaluations. In 2016 Harrison, Long, Manji and Blane applied a knowledge intervention targeting caregivers of children with autism in Tanzania. Information related to basic autism knowledge and behavioral treatment strategies were distributed to caregivers of school-aged children with autism. Of the 28 participants, 36% had never heard of autism, highlighting the limited knowledge regarding autism even among caregivers of children with the disorder. It is not a surprise that Manji and Hogan state "there is a serious deficiency in the awareness, facilities and human resources for children with autism in Tanzania (2014, p. 14)."

Due to the limited research and resulting lack of knowledge about autism, families of children with autism experience discrimination and stigma (Wallace et al., 2012). In 2011, only 0.35% of all children enrolled in primary school had a disability. This rate decreased to 0.3% of boys and 0.25% of girls in secondary schools (UNICEF, 2014). Comparing these percentages with the overall percentage of individuals with disabilities reveals most children with disabilities are not attending school. A child staying home from school not only proves to be a burden on the caregiver from day to day, but also limits the quality of the child's learning and social opportunities over their lifetime ("Children with disabilities," 2017).

Although an increase in the amount of overall research pertaining to autism has been observed, information related to teacher professional development is limited (Abubakar et al., 2016). Teachers have voiced the need for more professional development related to autism knowledge and teaching strategies (Majoko, 2016). Lack of knowledge and training among professionals not only impacts learning for students with autism in the classroom, but may also result in caregivers' inability to support the challenges and develop skills that are specific to the hallmark characteristics of the disorder (Wallace et al., 2012).

In 2011, the Organization of Medical and Psychological Assistance for Children Overseas (OMPACO) began collaborating with the Tanzanian Ministry of Education to provide autism knowledge trainings. Initially, the training began in the area of Dar es Salaam and over the years has expanded to the Arusha and Mwanza regions. Training sessions have consisted of lecture-based workshops covering topics including diagnostic criteria, assessment, communication, teaching strategies, behavioral strategies and Individualized Education Plan (IEP) development. The lectures were presented in English and translated simultaneously into Swahili. Participants were provided compensation for attending the workshop to assist with their travel as well as a light meal during the training. Since 2014, pre and post-test assessment related to autism knowledge were administered at each of the trainings OMPACO has hosted in order to assess participant's learning. At all trainings there have been significant increases in post-test scores suggestive of positive learning outcomes as a result of OMPACO's trainings.

Data from the most recent three-day OMPACO Autism Knowledge Training in 2018 in the Mwanza region demonstrated a significant increase in knowledge scores on the translated version of the 49-item Autism Stigma and Knowledge questionnaire (Harrison et al., 2017) for the 39 participants. This improvement in

knowledge did not appear to be related to participant gender or age, nor the number of students with autism or intellectual disability the teachers were currently instructing. These findings support the efficacy of an autism knowledge training in an urban area of Tanzania.

The results from the OMPACO training reinforce findings by Leblanc et al. (2009) that claim even a brief professional development program can improve basic teacher knowledge about autism. Providing such training with a frequency greater than once a year is ideal. In July 2018 a pilot mobile phone project was launched in the Arusha area. This allowed teachers to access via mobile phones in a written format to the learning materials presented in the OMPACO face-to-face training. This program ran from July through December 2018. Participants completed the training in a self-paced manner with the flexibility of being able to refer back to presented material. If successful, the training could be offered in regions across the country with greater frequency.

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POSITIVE SOCIETAL ATTITUDE: AMELIORATING SELF-ESTEEM AMONG PEOPLE WITH INTELLECTUAL DISABILITY IN NIGERIA

Ayodele Patience Aborishade

Introduction

Many people with intellectual disability in Nigeria have lost their identity to their disability because the society has failed to realize their potential, but instead they focus on their disability. The strength of people with intellectual disability has been downplayed and their deficits extremely exalted. Positive attitude is building on the strength of an individual. This goes a long way to help people see themselves in a new light. Building on their strength enhances their contribution to their immediate society and the world at large, instead of being isolated. Thus, positive societal attitude ameliorates self-esteem among people with intellectual disability.

Historical background to Societal Attitude

History has a lot of examples of how people with intellectual disability were treated. Some were murdered, isolated, and treated with total disdain. Some were abandoned by the hill side and others were made to die by starvation. Some were seen as incarnations of demons and other forms of segregation were employed. According to Munyi (2012) many Nigerians attribute causes of disabilities to supernatural forces and diabolic acts such as witchcraft. The effect of this is a dent on the identity of the individuals as they are being devalued. This affects their self-esteem. However, over the years, enlightenment has changed this superstitious view of the society. The United Nations and other concerned organisations have ensured that people with disabilities are not discriminated, thus enhancing their self-esteem.

Potential of People with Intellectual Disability

Each individual with intellectual disability, despite their limitations, has their own unique capabilities and talents. People with intellectual disability are characterized by an intelligence quotient which ranges from 70 and below (Bittles et al., 2002) and deficits in adaptive skills. However, they are filled with lots of potential and ability. Some are very hospitable, others have love for one vocation or the other in which they excel in; this can boost their self-esteem.
It is vital to understand that every life has worth. Value should be placed on every person and instead of fitting them into the society's idea of what is expected of them, people with disability should be accepted and encouraged to build on what they have. Their strength, however, may not be discovered if superstitions are not curbed by awareness programs and early intervention.

Attitude That Ameliorates Self Esteem

Early Intervention. Several technological and cultural advances have made early interventions in children with intellectual disability a possibility. International communities such as the World Health Organization (WHO) and UNICEF have advocated that early intervention continues to be a high priority for children with intellectual disability. This early intervention scheme exists in various countries regardless of ethnicity, family income, and socio-economic status (WHO & UNICEF, 2012). According Jimenez et al. (2018) the central nervous system is more amenable during the early stages of life and thus presents a child with intellectual disability a better chance to maximise their potential. Early intervention affords people with intellectual disability the opportunity to be trained in their preferred vocation. This enables them to become independent, fend for themselves, contribute to their society, and boost their self-esteem.

Inclusive Education. The idea of inclusive education where people with disability are given the same educational opportunity as those without disability with the help of a special educator is another means to boost their self-esteem. According to Miles and Singal (2010) the aim of inclusive education is to ensure access to quality education. Beyond this, inclusive education fits them into the society and creates an atmosphere of acceptance. Acceptance is very crucial to enhancing the self-esteem of individuals with intellectual disability. It allows them to explore their ability alongside their non-disabled peers.

Positive Societal Attitude. A society with a positive attitude provides an environment that ensures people with intellectual disability thrive. Such positive attitude includes lauding their strength, which in turn increases their self-confidence and positively influences their productivity. Building on the strength of individuals with intellectual disability boosts their self-esteem. Consistently appreciating their abilities enhances their self-worth and efficiency at what they know best. This allows them to contribute their quota, which could be in form of arts, effort, and knowledge to the growth of the society. By contribution, their impact is felt and greatly rewarded. They can thus live a fulfilled and rewarding life.

Conclusion. I believe positive societal attitudes enhance the self-esteem of individuals with intellectual disability; a positively behaved society sees beyond their incapability. Their abilities are maximally explored and this in turn influences their self-esteem positively. The productivity as well as the efficiency of people with intellectual disability also increases in a positively behaved society. Therefore, it is pertinent to note that the self-esteem, productivity, and societal contribution of people with intellectually disability are directly related to the way the society sees and treats them. A positively behaved society supports people with intellectual disability to become productive.

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EFFECT OF INSTRUCTIONAL AND BEHAVIORAL INTERVENTION STRATEGIES FOR INDIVIDUALS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

Nwachukwu, E. Kingsley
Ogushola, B. Elizabeth

Summary of Study

There are an estimated 1.46 to 2.46 million children with Attention Deficit Hyperactivity Disorder (ADHD) in the United States; together, these children constitute 3-5% of the pupils' population (American Psychiatric Association, 1994; Stevens, 1997). Some research suggests that the condition is diagnosed four to nine times more often in boys than in girls (Bender, 1997). Although for years it was assumed to be a childhood disorder that became visible as early as age three and then disappeared with the advent of adolescence, the condition is not limited to children. It is now known that while the symptoms of the disorders may change as a child ages, some children with ADHD do not grow out of it (Mannuzza, Klein, Bessler, Malloy, & LaPadula, 2008).

Hitherto, the issue of poor performance of children with ADHD in both private and public schools in Nigeria still persists. As a result of this, the problem of low performance of children with ADHD forms the basis for this study. In the school system, no provision has been made regarding intervention strategies for pupils with ADHD. Since the knowledge of ADHD and how it influences academic performance is not widely known by teachers and school authorities in Nigeria, in the classroom, more often than not, teachers are faced with quite a number of difficulties teaching pupils with ADHD; it was therefore, appropriate to conduct a study to ascertain the effect of environmental, instructional, and behavioral intervention strategies on academic performance of pupils with ADHD. Therefore, this research sought to fashion out a new model by using environmental, instructional, and behavioral intervention strategies as a compact component to increase the Mathematics academic performance of pupils with ADHD.

This research was a quasi-experimental study with a sample population of ADHD pupils. The instruments used for the study were an adapted diagnostic checklist, pupils' performance tests (pre-test and post-test) and intervention programs (treatments). The intention of this study was to determine if environmental, instructional and behavioral intervention strategies had significant effects on the Mathematics performance of pupils with ADHD. Having reviewed the literature on ADHD and several intervention strategies, the researcher concluded that ADHD is present in our schools, especially in Nigerian public primary schools.

The prevalence of ADHD in our schools is similar to that in other parts of the world. From the researchers' experience, teachers need to be aware of the different interventions they could use in helping pupils with ADHD perform better academically, though the problem is present amongst primary schools, yet most teachers are not even aware of what the disorder is called; this is because ADHD is one of the emerging mental health disorders and a neglected health issue in Nigeria. It is believed that this study would establish that the mathematics performance of pupils with ADHD could be enhanced with the use of environmental, instructional, and behavioral intervention strategies. It demonstrated the effects of these three intervention strategies on mathematics performance of pupils with ADHD as well as the relevance of intervention programs in the management of learning difficulty in mathematics of pupils with ADHD in public primary schools. With this, the possibility of turning the academic difficulty of pupils with ADHD expressing deficiencies in mathematics performance to positive opportunity that could guarantee them success in their academic pursuit is a possibility and reality. Findings of this research showed that: The environmental intervention strategies (EIS) seemed to improve the Mathematics performance scores of pupils with ADHD more than the conventional method of instruction (CMI). Specifically, the study yielded the following findings:

- There was a significant difference in the Mathematics performance scores of pupils with ADHD exposed to environmental intervention strategies (EIS) and those exposed to the CMI.
- The instructional intervention strategies (IIS) appeared to improve the mean Mathematics performance scores of pupils with ADHD more than the CMI.
- There was a significant difference in the Mathematics performance scores of pupils with ADHD exposed to instructional intervention strategies (IIS) and those exposed to the CMI.

- The behavioral intervention strategies (IIS) seemed to improve the mean Mathematics performance scores of pupils with ADHD than the CMI.
- There was a significant difference in the Mathematics performance scores of pupils with ADHD exposed to behavioral intervention strategies (BIS) and those exposed to the CMI.
- The environmental intervention strategies (EIS) seemed to slightly improve the Mathematics performance scores of male pupils with ADHD than their female counterparts.
- The Mathematics performance scores of male and female pupils with ADHD exposed to environmental intervention strategies (EIS) do not differ significantly.
- The instructional intervention strategies (IIS) appeared to slightly improve the Mathematics performance scores of female pupils with ADHD than their male counterparts.
- The Mathematics performance scores of male and female pupils with ADHD exposed to instructional intervention strategies (IIS) do not differ significantly.
- The behavioral intervention strategies (BIS) seemed to slightly improve the Mathematics performance scores of male pupils with ADHD than their female counterparts.
- The Mathematics performance scores of male and female pupils with ADHD exposed to behavioral intervention strategies (IIS) do not differ significantly.
- For both male and female groups exposed to the three intervention strategies, the posttest means were greater than the pretest means with males having a slightly higher mean gain than their female counterparts when exposed to BIS, IIS and EIS, while the female group had a slightly higher mean gain than their male counterparts when exposed to the CMI.

There is a significant interaction effect of the three intervention strategies and gender on mathematics performance scores of pupils with ADHD. The finding of the study are supported and confirmed by the opinions of Loe and Feldman (2007): and Rucklidge (2010). In conclusion, the result of this study implies that to manage pupils with ADHD learning difficulty in Mathematics; and for them to succeed scholastically and socially, it is very important that modification interventions are projected to meet these pupils' specific needs.

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AN INNOVATIVE CURRICULUM IN SPECIAL EDUCATION TO TEACH BANKING AND PROMOTING LIFE SKILLS

Jasmine Pandya
Fionika Sanghvi

Program Description

Our school curriculum is designed for holistic and integrated education to develop resilience and inclusive sustainable development. This is surely relevant to students' lives. It is designed to support financial literacy using an interactive, fun and innovative program promoting life skills – banking.

The program is used for educational purposes and it teaches both the basics of money management and skills needed to create a brighter financial future. The learning objectives are for students to identify sources of income, recognize the importance of money and describe the role of banks. The mathematical objectives of these lessons are for students to do mathematical computation.

Teaching students, important life skills of money management and savings when they are still young can empower them for success in the future and set up a regular savings routine. Banking plays an essential role in helping students learn about money management. Budgeting, saving, and the function of money are essentials that every working individual should know.

The contents of the banking lessons are integrated into other lessons. When the students are just getting started with financial management, banking can be confusing if not overwhelming. However, in this adventure they learn all about money. Banking teaches responsibilities, builds interest, confidence, and understanding the many benefits of having your own account and how banks help to keep it safe. It is never too early to know that being smart about money and saving is an important part of life. Banking is used as a spring board to address real life situations.

Interactive lesson plans are an enjoyable training method to learn about banking. The training for banking begins with classroom learning and understanding some key words that are often used, i.e., money, bank, budget, saving, bank account, interest, deposit, withdrawal, ATM, debit, and credit cards. Students get an allowance, or they receive money on occasions. The importance of saving is introduced through trial and error methods but more importantly, through experience. The curriculum empowers the students to understand the importance of saving. The methodology involves training the students to explore beyond a piggy bank. It is a great aid to teach the students 'the more they save – the more the money will grow'. Mock banking experience builds familiarity for students to know the various departments of a bank and their functions. To begin the training, students visit various banks to get the feel of the environment. It is essential to identify a bank that would be receptive of the idea of having special students opening their account in their branch. The bank employees, managers and other officials are sensitized and familiar with the needs of our special students.

Opening a saving bank account can provide a great source of motivation to the students. Visit to different banks and the concrete experiences strengthen their visualization of this concept during a mock experience and inculcate visual transport. The concept of banking is taught through a graded five years syllabus with topics that support training and regular practice for banking. The topics covered to enhance their knowledge of banking are: opening current and savings accounts, types of cheques, identify functions and uses of pay-in slips and cheques, use of ATM machine to deposit and withdraw cash, credit and debit card, updating passbook using kiosk, maintaining records of their deposit and expenditure, and online banking. The curriculum is regularly updated to keep the students abreast with the latest methods in banking such as online banking.

The other additional subjects of the Office Procedures Department being computers and mathematic support learning of banking. The applications of topics taught in this subject have a direct opportunity to follow up through banking. The success of learning all the conceptual topics for the life skills of banking is possible only when the behavioral aspects particularly discipline, ethics, morals, and emotions are addressed, mapped, monitored and implemented in the real life experience of opening a saving bank account.

The students have learnt that banking and saving work hand-in-hand. A sense of pride develops while watching and experiencing their savings account improve. Banking helps in managing relationship criteria as the students learn to be patient, flexible, respectful, and sensitive to the needs of others. Banking inculcates self-worth, self- confidence, and being hopeful, which infuses a positive outlook in the area of self-care. Learning a life skill of banking enables our students to not only be self-sufficient but also support their families by managing banking activities. Banking and financial literacy will enable students in making important life decisions and this truly makes them independent members of society.

Conclusion

Banking is a life skill, which helps students to be compatible in finding placements in mainstream. Today as the world is advancing towards cashless economy it is essential to train students with intellectual disabilities in this area.

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AN INTENSIVE SPORTS TRAINING PROGRAM TO PROMOTE VARIOUS SKILLS IN A SPECIAL SCHOOL

Rajashri Chandrakant Ghosalkar

Program Description

S.P.J. Sadhana School provides a year-round sports training program and athletic competition in a variety of Olympic-type sports for students (5 ½ years of age and older) with intellectual disabilities. It gives them continuing opportunities to develop physical fitness, demonstrate courage, develop personality, build self confidence and self-esteem, improve social and communication skills, experience joy and participate in sharing skills and gifts, bond with their families, and develop friendship with other special athletes and the community.

Every human being has a fundamental right to access physical education and sports, which are essential for the full development of their personality. The freedom to develop physical, intellectual, and moral powers through physical education and sport must be guaranteed within the educational system and in other aspects of social life. Sport creates an important learning environment for students. Students with special needs are

usually not encouraged to exercise or play because their parents or guardians fear they will be hurt. Most of the time children are busy watching TV or playing games on the computer or laptop where they become less active; but children who are participating in a variety of sports activities and leisure games are found to be active, energetic, enthusiastic, well behaved, disciplined, communicative, and self- confident. Physical activity is important to improve skills in relationship building and working as part of a team as well as helping in weight management, which is a common problem among today's children in our country.

Daily physical activities or exercise stimulate growth and lead to improved physical and emotional growth. Exercise also relieves stress, depression, and anxiety and children are more likely to be well-rested and mentally sharp in mathematics, reading, and memorization through this kinaesthetic and holistic approach. By giving children continuing opportunities and encouragement and proper instruction they enjoy, learn, and benefit through the Young Athlete training program to enhance their skills of individual and team game.

Consistent training under the guidance of a qualified coach, with emphasis on physical conditioning, is essential to the development of sports skills and fair competition among those of equal abilities. Training also lends itself to testing skills, measuring progress through daily sports activities, and providing incentives or reinforcement for their personal growth.

Through sports training and competitions children benefit physically, mentally, socially, and spiritually. It is also within the ambit of sport that peer status and peer acceptance is established and developed. Because sport is important to all students, being good at sports is a strong social asset. Younger as well as senior students particularly use sports and games to measure themselves against their friends and peers. Students who are good at sports are more easily accepted by their own age group and are more likely to be team members, captains or leaders. They are found to have better social and communication skills.

The various strategies and methodologies used while training and coaching students allow them to be more capable, self-confident, courageous, and independent in their daily living. Appropriate motivation and empowerment as well as continued quality of training and coaching the students develop their self – confidence, gross and fine motor abilities, body balance/posture, body agility, orientation in space and time, perception, competitive spirit, leadership qualities, personality, muscular strength and endurance, and range of motion. With the collaboration of the sports training programme and parent's co-operation, students are able to participate in various Olympic events/games and competition at district, state, national and international level.

The primary goal of parents and coaches is to help students find success in sport. They need to make them feel valued, respected and wanted. The students need the freedom to participate in a game of their choice and interest. Appropriate and positive modification of student behaviors with the intervention of simple to complex activities to achieve the long-term goal, also need to be instated.

Parents and Trainers need to encourage and motivate students while respecting their abilities and deficiencies. Through patience and innovative teaching methods they can provide the students with a meaningful and enjoyable experience. It is incumbent on the coach and support trainers to increase the understanding of the importance of sports for a student with special needs in the minds of parents and other educators. Parents and siblings of students must be involved in the training programme for an effective follow up. Setting goal for student while providing designed home assignments for home based activity to develop basic skills of a particular game or sports activity, is a necessity. Every student has unique abilities to learn and adopt the skills or rules of a game or sports activity and can be successful at one sport or another and time must be invested in finding the sport which is right for his /her development.

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AVAILABILITY AND UTILIZATION OF ICT RESOURCES IN A SPECIAL SCHOOL IN ILORIN, NIGERIA

Ogunshola Folashade Roseline

Conceptual Framework and Background

The need for information and communications technology (ICT) availability and utilization in Nigerian special schools cannot be overemphasized. The National Policy on Education recognizes the prominent role of ICT in the modern world and the need to integrate it into education in Nigeria (Federal Republic of Nigeria [FRN], 2013). To actualize this goal, the document recognizes some of the special education equipment and materials needed by students with intellectual disabilities in special schools. ICT is the means for providing access to and engaging in the continuous learning that becomes necessary for successful participation in the society development of all social groups of the population (United Nations Education, Scientific and Cultural Organization [UNESCO], 2004). ICT availability and utilization will prove beneficial in improving special education in Nigeria and giving students with intellectual disabilities a better education. Achievement in the availability and utilization of ICT resources in Nigerian special schools is dependent on the recognition of the importance of ICT application to education for sustainable development.

A conceptual framework for using ICT in education for people with disabilities by UNESCO (2011) is presented in this study to provide a framework for ICT development in special schools. According to UNESCO, five key propositions are identified within the 2006 UN Convention on the Rights of Persons with Disabilities in relation to the use of ICTs in education: 1) Promotion of equity in educational opportunities at all levels of lifelong learning; 2) Access to appropriate ICTs, including assistive technologies to allow learners to reach their full potential; 3) The training of educational staff to make use of ICTs in educational settings; 4) The promotion of research and development into the availability and use of new ICTs; 5) Systematic data collection to identify and then monitor the implementation of minimum standards for ICT in education for people with disabilities.

Research

In this study, two research questions and one hypothesis were formulated. Descriptive survey research design was adopted. A sample of 100 out of 126 respondents in special school in Ilorin metropolis, Kwara State of Nigeria was used. Simple random sampling technique was used to select the respondents in the school. A questionnaire tagged "Availability and Utilization of Information and Communication Technology Resources Questionnaire" (AUICTRQ) was administered to the teachers in order to obtain information on the availability and utilization of ICT resources in special school in Ilorin.

The AUICTRQ comprised of two sections (A and B). Section A covered the availability of ICT resources while section B covered information on the utilization of ICT resources by teachers. The respondents were required to answer the items on a 2-point scale of available and not available for the availability of ICT

resources while the utilization of ICT resources by teachers was on 4-point Likert rating scale, ranging from 4 to 1 as follows: To a very large extent is 4 points, moderately is 3 points, seldomly is 2 points and never is 1 point. To ascertain the validity of the instruments, content validity was adopted. The AUICTRQ was pilot-tested and reliability coefficient of .81 was obtained. Thus, 100% of the instruments were returned and used for data analysis.

The frequency counts, percentage, mean score and standard deviation (SD) were used to answer the research questions while Pearson's product-moment correlation coefficient was used to test the hypothesis at 0.05 level of significant. The decision rule for interpretation of the results of the data analysis was that a mean score of 2.50 and above was considered as a positive response (moderately), and less than 2.50 was considered as a negative response (seldomly). The calculated probability (*p*-value) that was greater than the significant level of 0.05 was accepted while the p-value that was less than the significant level of 0.05 was rejected.

Results

From the data analysis, the study revealed that some of the ICT resources used for students with intellectual disabilities such as note takers, computers with voice sensitizer, handset, toys, radio, CD players, television, video players, library and generator for power supply were available in special school in Ilorin. Also, the study showed that the level of ICT resources utilization by teachers for the students with intellectual disabilities in special school was moderate. Lastly, the findings of the study indicated that there was significant relationship between availability and utilization of ICT resources in special school in Ilorin. This implies that the availability and utilization of ICT resources could enhance and enrich teaching, motivating and engaging the students with intellectual disabilities in active learning.

Recommendations

Educational administrators and planners (such as government, curriculum planners, policy makers, principals, and so on) should encourage the use of ICT in special school in Ilorin by providing sufficient ICT resources to the students with intellectual disabilities, and also ensure that ICT education is fully incorporated into special education curriculum in order to help students with intellectual disabilities learn better.

Suggestion for Further Study

This study examined the availability and utilization of ICT resources in a special school in Ilorin, Kwara State, Nigeria which focused on the level of ICT resources utilization by teachers. The scope of this study can be expanded to the area of accessibility and utilization of ICT resources by the students with intellectual disabilities in the same school.

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FACTORS THAT INFLUENCE PRACTITIONERS' CHOICE OF BEHAVIOR MANAGEMENT STRATEGIES OF LEARNERS WITH AUTISTIC SPECTRUM DISORDERS IN WESTERN KENYA

Khasakhala E. Okaya
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Sichari Manson
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Conceptual Framework and Background

Autistic Spectrum Disorders (ASDs) is a developmental disorder with unknown etiology and with heterogeneous symptoms. ASDs are defined at the behavioral level on the basis of impairment in socialization, communication, and imagination with stereotyped repetitive interests taking the place of creative play (Khasakhala Oracha and Ouma, 2014). While no known cure for ASDs exists, the general agreement is that early diagnosis, followed by appropriate intervention can improve outcomes in later years for most individuals with ASDs (Bailey, 2006, Ospina *et al*., 2008; Bakare, 2012). While there are no definitive medical tests to indicate the presence of any form of ASDs (Ospina *et al.,* 2008), diagnosis can be made by three years of age based on the presence or absence of specific behaviors that are used as diagnostic criteria (Kiguta, 2010; Bakare, 2015). Consequently, the question of how teachers manage different behaviors presented by learners with ASDs in order to help them increase their abilities to function is highly relevant to families, community, other professionals, and policymakers in education. Practitioners working with learners with ASDs often feel ill-prepared to manage the children's challenging behaviors. Quite often, when they are faced with cases of challenging behavior, they use coping strategies that lead to delinquency and other anti-social behaviors resulting in them dropping out of school. Relatively little is known on factors that influence the choice of behavior management strategies.

Research

The purpose of this study was to investigate factors that influenced practitioner's choice of challenging behavior management strategies. The target population was 106 teachers and 40 teacher aides. Saturated sampling technique was used. Data were collected using a questionnaire, observations, and semi-structured interviews.

Results

Results of the study indicated that there were no significant differences between teacher aides' and teachers' rating of factors that influenced the choice of challenging behavior management strategies. Factors that significantly influenced choice of management strategies were professional qualification and experience in working with learners with ASDs. Age of respondents and gender had no significant influence on choice of management strategies. Both types of practitioners were very positive towards factors that determine the choice of challenging behavior management strategies. They highly rated training, seminars, and workshops that they had attended as having equipped them with adequate skills to manage challenging behavior presented by learners with ASDs. These factors need to be considered when planning for training of practitioners in management of challenging behavior presented by learners with ASDs.

In summary the findings indicated that training, work experience, collaboration and networking with other practitioners, staffing levels, support received from parents of children with ASDs, and organizational

structures at schools were considered by practitioners as important variables in the management of challenging behavior. These factors could be the major indicators of choice of challenging behavior management strategies.

Recommendations

Practitioner's perceived challenging behavior presented by learners with ASDs to be caused by biological, ecological, psychological, behavioral, humanistic, psychodynamic and sociological factors. Efforts should be put in place to give practitioners practical skills to manage challenging behaviors. The study findings indicated that challenging behavior is a multidimensional concept; as such, practitioners need to use more than one strategy when managing challenging behavior presented by learners with ASDs. Training should be offered to practitioners to choose strategies that effectively address the challenging behaviors presented by learners with ASDs. In managing Challenging behaviors presented by learners with ASDs, there should be collaboration, building of partnerships, and networking between practitioners and other professionals**.**

Suggestion for Future Research

The findings of this study indicated that gender of respondents did not influence the choice of challenging behavior management strategy. There is need for further research to investigate the influence of gender on choice of management strategy on a particular challenging behavior such as aggression, self-injury, or inappropriate vocal behavior.

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PROVIDING SUPPORT FOR INDIVIDUALS WITH INTELLECTUAL IMPAIRMENT FOR INDEPENDENT LIFE IN TANZANIA: A CASE OF SHAMBALA SOCIETY, LUSHOTO DISTRICT, TANGA REGION

Alfred Y. Walalaze

Background and Conceptual Framework

The ancient Greeks and Romans felt that children with intellectual impairment were born because the gods had been angered. Often, children with severe intellectual impairment would be allowed to die of exposure as infants rather than permitted to grow up. The Chinese left their people with intellectual disability to drown in rivers (Harris, 2006). Some societies considered people with more severe intellectual impairment to be capable of receiving divine revelation. As the U.S population became more urbanized in the late half of the 1800's and early 1990's, people with intellectual impairment and others were segregated into instructional settings to protect society from them and to control their reproductive lives (Lewis, 2006). With time, some people began to realize that intellectual impairment could be caused by various reasons, including genetic and environmental factors (Heward, 2013). As a result, people became more aware of intellectual impairment and some effective measures were taken, for example, introduction of some organizations, which dealt with the rights of these individual such as the right to education, free expression, and interaction. In Africa, variations in treatment of persons with intellectual impairment manifested as in other parts of the world. Children with severe impairment were abandoned on river banks or near the sea so that such "animal like children" could return to what was believed to be their own kind (Lewis, 2006).

In Tanzania individuals who were born with intellectual impairment were considered to be a curse from gods; hopeless and helpless, they were hidden and deprived of their rights. Some were killed secretly and those who survived this treatment were segregated in interactions such as in sports, games, and even in decision making (Ishumi, 2000). Previously in Shambala society, the cause of intellectual impairment was associated with witchcraft and punishment from the gods due to evil doings. Individuals with intellectual impairment were said to be hopeless and helpless and hence no support was provided to them. For many people with disabilities, assistance and support are prerequisites for participating in society. The lack of necessary supports can make people with disabilities overly dependent on family members and can prevent both the person with impairment and the family members from becoming economically active and socially included (Harris, 2006). The types of support can be categorized into social support, academic support, economic support, and vocational/occupational support. The purpose of this paper was to explore how the Shambala society participates in provision of supports to individuals with intellectual impairment.

Method

Qualitative research approach was employed during data collection through one to one interview and observation. Mtae population was about 12851 individuals according to a 2012 census. The sample comprised of 17 individuals, which included heads of five families having children with intellectual impairment, four religious leaders (two Muslims, one from each village, and two Christians, one from each village), six teachers from general school, and two government leaders.

Results

Types of Support Provided by Shambala Society to Children with Intellectual Disabilities

Families. The heads of five families interviewed said that they support their children in self help activities like washing their clothes, bodies, and cutting their nails. They sent their children to school so they could not feel

loneliness while their sisters and brothers attended school; also, they gave them their basic needs such as food, shelter, and medical services when they were sick.

Teachers. Always registered all pupils brought by parents regardless of whether they had intellectual impairment or not. They said that they helped these pupils by teaching them simple life skills such as communication skills, social skills (how to interact with others), as well as simple mathematics skills that could help them in their lives.

Government leaders. There were individuals with intellectual impairment in their ward but some families did not expose them because of avoiding to be laughed, as women in their society believed that having children with intellectual impairment was the result of pregnant women being lazy during labor time and a curse hence family avoided them.

Religious leaders. Sheikh said that they allow them to attend madrasa education without considering their impairment as the barrier. One sheik said "*Even if they won't catch up all teachings, some may remain in their minds after the long time teachings.*" They also gave zakatul fitri and clothes to all poor families including those with children having intellectual impairment by ensuring that they enjoyed eating good meals during Eid el Fitri ceremony. Pastors said that they usually organized diaconia to help those in need by giving them food, clothes as well as bars of soap; they also sometimes called the children to have recreation activities with other children without disabilities.

In Shambala society, people were trying their best to support children with intellectual disabilities despite the fact that local believes still existed. The findings revealed that, many people had a heart for these children; this was contributed to by religious institutions, but due to lack of education on how to provide support that could make children having intellectual impairment live independent, these children were still dependent. Many parents played a great role in providing supports as their daily responsibilities but not for the purpose of making them develop their full potential. School, government, parents, neighbors of families having individuals with intellectual impairment, and religious leaders at Mtae ward provided supports to children with intellectual impairment.

Hunt and Marshall (2006) argued that if appropriate supports are in place, students with intellectual impairment can achieve a high quality of life in many different aspects. Curriculum and instruction must be carefully modified to help these students reach their potentials in both academic and other functional areas such as independent living. The interviewed groups revealed that there was absence of special schools in Mtae ward, which becomes a challenge in supporting children with intellectual impairment. Parents did not afford to send their children with intellectual impairment at Irente rainbow and Lwandai Unit special school because they were not a boarding school and were very far from their place. They took their children to a general school with no specialist teachers; hence, the children received very minimal support.

Recommendations

The government should establish at least a unit for learners with intellectual impairment within general schools with special education teachers, and provide the necessary infrastructure. The findings presented in this study are from Mtae ward, which is located in Lushoto district in Tanga region. Therefore, the results cannot be generalized, hence other researchers should conduct research in other districts.

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EFFECTS OF "APPLE TREE" ON WRITING PERFORMANCE OF DEAF CHILDREN

Michael Abednego

Overview

Writing sentences correctly constitutes one of the greatest obstacles to academic performance of deaf children. Writing in this connotation is what Giddens (2009) described as the ability to translate oral language, English, into a written form in sentences correctly. Writing of sentences is a language task and mastery of written language is a major stumbling block in the education of deaf children. Hence Azonor, Isola and Ajobiewe (2015) noted that deaf children have difficulty in all aspects of verbal and written communication including vocabulary and grammar. Children learn how to write from the language they hear. However, Giddens (2009) suggest that because deaf children have incomplete access to language they have problem in the development of written language. Perry (2013) observed that deaf children make errors of omission, errors of substitution, errors of addition of unnecessary words, and inappropriate word order in their self generated writing. Also, writing produced by deaf children contain shorter sentences (Wolf, 2011).

Research

The study was a pretest, posttest quasi-experimental design in which 20 deaf children were divided into two groups of 10 children each. One group was the control while the other was the experimental. The instrument for Assessment of Deaf Children's writing developed by Burman, Evans, Nunes, and Bell (2007) using a wordless picture story was adapted and used for data collection. A pretest was given to both the control and experimental groups. The APPLE TREE approach was used to teach the experimental group after which a posttest was given to the two groups.

Results

It was observed that there was much difference in the children's performance in the production of correct sentences after APPLE TREE approach was used to teach them. For instance, the highest difference between the pretest and posttest was 30 (150%) whereas the lowest difference was 15 (75%). Also, the number of words used by the experimental group at the post treatment stage showed an improvement because the highest difference between the pretest and the posttest was 92 (84%) while the lowest difference was 11 (22%).

Recommendations

Teachers of deaf children are often faced with the difficult task of teaching writing to the children. They can be encouraged to use the APPLE TREE approach to teach the children how to write sentences correctly. Training workshops on how to use the APPLE TREE approach can be organized for teachers who may like to use the approach but may not know how to use it in the classroom.

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TRAINING SPECIAL EDUCATION TEACHERS AT AN AFTERSCHOOL PROGRAM FOR LOW INCOME YOUTH

James Kirk
Robert "Jay" Palmer
Mary Kirk

Conceptual Framework and Background

Children who grow up in poverty face a myriad of educational barriers. To help address these barriers, many afterschool programs are located in low-income neighborhoods to allow at-risk youth to access a safe haven from negative influences, receive academic support, and participate in recreational activities commonly afforded to their wealthier peers (Fox & Newman,1997; Halpern, 1999). Children who attend well-supervised afterschool programs often display better work habits, task persistence, social skills, pro-social behaviors, academic performance, and less aggressive behavior at the end of the school year (Durlack, & Weissber, 2007; Wong, 2009).

Intervention models created to address issues related to growing up in poverty have been shifting from a deficit approach that focused on preventing negative outcomes, to a strengths-based approach focused on enhancing individual and community assets (Bensen, Scales, & Syvertsen, 2011). An outgrowth of this shift is the Positive Youth Development Model (PYD). Drawing from the ecological and strengths perspectives, the goal of PYD is enhancing the natural talents, interests and self-agency that youth bring to their lives (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2004). When an environment offers what Roth and Brooks-Gun (2003) refer to as the 5 c's of PYD (competence, confidence, character, connection, and caring), youth are more likely to successfully navigate their world resulting in better educational outcomes. Programs that take a PYD approach to serving youth are more successful when they include skill building activities, positive adult interaction, and opportunities for youth to make meaningful contributions to their community (Lerner, 2004).

Based upon the five C's of PYD and their own research, the Search Institute developed a list of 40 developmental assets that provide the foundation for healthy development in children and adolescents. These assets are comprised of both internal assets such as personal characteristics, and external assets such as family and community resources and support. Many after school programs provide support for developmental assets such as constructive use of time, positive adult relationships, and academic enrichment while helping children develop the positive values and interpersonal competence they need to become contributing citizens in society (Fox & Newman, 1997).

Program Development

Developed in 2009, the Kids First afterschool program is a unique collaboration between the Winona State University Department of Special Education and Maplewood Townhomes, a low -income public housing site in Winona, Minnesota. Approximately 50 children in grades 1-12 attend Kids First every day. In the past three years, faculty and students from special education and social work have collaborated on Bird Club, a weekly group that meets at Kids First. As part of Bird Club, university students work with children in grades 1-5 to help build literacy skills and cultivate a greater appreciation of birds. Bird Club is intended to promote the developmental assets of *constructive use of time, achievement and motivation, and reading for pleasure.*

Results

By weaving the developmental asset approach together with hands-on teacher training, our university students learned to promote the developmental assets of family support, positive family communication, adult relationships, caring neighborhood, and parent involvement in schooling. Through this program, university students gained an understanding of factors that promote or inhibit effective learning experiences for children living in poverty in the U.S.

University students involved in the project reported a substantial impact on their university experience. As part of this project, the university students have had many opportunities to practice teaching skills and supporting developmental assets. Students reported that the "real world experience" made course content less abstract and easier to understand. Students stated that they see the value of using a developmental asset approach and had already begun incorporating it into their work outside of the classroom.

Next Steps

This paper describes the beginning stages of a project designed to promote strong developmental assets in the community of Maplewood Townhomes while providing meaningful learning opportunities for university student teacher candidates. We have received external funding to support an expansion of the program through "Garden Club." This will involve building a greenhouse, a community garden on site, and offering parent and child cooking classes. We plan to conduct formal research on the impact of the program that will allow us to examine its efficacy and make program improvements as we progress in the process.

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INCLUSIVE EDUCATION IN TERTIARY INSTITUTIONS IN NIGERIA: HOW FAR, HOW WELL?

Samuel Olufemi Adeniyi

Background to the Study

Educating students with and without Special Education Needs within the general classroom is currently part of developmental agenda worldwide. Hence, the need for adequate preparation to meet quantum of challenges that can confront this practice in term of pedagogy and support facilities to accommodate different differences that exist among students both at lower and higher educational levels.

Inclusive education, a new educational philosophy, is a worldwide reform strategy intended to include students with different abilities in mainstream classroom (Ahmed, Sharma & Deppeler, 2012); the tertiary level of education is not excluded in this arrangement as all students are expected to be helped to achieve their life aspiration and contribute to the growth and development of their society. The new agenda was informed by the world conference on Special Needs Education held in Salamanca, Spain in 1994, which basically provided the standard rules on the principles that all children regardless of ability or disability have basic right to education alongside their peers in their local schools (UNESCO, 1994). The new trend is aimed at removing social prejudice and alienation that have hitherto meted on special needs children within and outside the classroom at all levels (Adeniyi, Owolabi & Olojede, 2015).

Research has revealed that the successful implementation of inclusive education is contingent on so many factors such as teachers' positive attitudes (Jordan, Schwartz & McGhie-Richamond, 2009; Rakap &

Kaczmarek, 2010), facilities and resources (Mitchell & Desai, 2005; Adeniyi, Owolabi & Olojede, 2015), and the school environment (Adeniyi, Oluwatayo & Otunla, 2016). Combinations of all these factors evidently can aid the smooth integration of students with special needs and, of course, implementation of inclusive education.

In Nigeria, the issue of inclusive education is talked about in conferences and educational fora with stakeholders coming out with communiqué towards implementation of such laudable educational philosophy. At lower levels of education in Nigeria, much has been achieved in term of contents, pedagogies, training of personnel and creating inclusive environment for special and students without disabilities. However, it seems inclusion ends at lower levels because such innovations are sparingly achieved at tertiary levels. In a qualitative research by Onyuka (2015) on factors influencing implementation of inclusive education in primary school in Kenya, it was reported that supporting facilities could mar the process of implementation. In same vein, Chimwaza (2015) investigated challenges of implementation of inclusive education in Malawi reported among other findings the importance of support facilities in the implementation of inclusive education.

Therefore, if inclusive education will be successful at the tertiary level of education in Nigeria, support facilities needs to be assessed whether they are adequately available with the aim of repositioning special needs education in the right perspective now that the focus has shifted from millennium development goals to sustainable development goals.

Research Questions

1. How would teachers rate the perceived supporting facilities for students with disabilities in their institution?
2. Do the current facilities in institutions support students' social and academic activities of students with special needs?
3. What is the perception of lecturers, admission officers, and students with special education needs regarding their relationship with their institutional environment?

Method

This study employed both qualitative and quantitative methods to collect data. The sample for this study comprised lecturers, admission officers, and students with special education needs. Four admission officers, 120 lecturers selected using convenient sampling technique and 95 students with disabilities were purposively (67 with visual impairment, 7 hard of hearing and 21 with physical disabilities) in the institutions targeted for the study. The instruments used were facilities assessment scale and structured interview questions developed to seek information from admission officers, lecturers, and students with disabilities. Photographs of the facilities were taken after permission from appropriate authorities. Both facilities assessment scale and structured interview question were validated. The data collected were analyzed using simple percentage and content analysis.

Results

The findings revealed that support facilities in various institutions used were not available and those available, were very poor and not supporting. The result further revealed that the current facilities did not support special needs students' social and academic activities. The findings further revealed that students with special needs did not enjoy good and positive relationships within their academic environment. In the focus group discussion (FGD) conducted with a group of students with disabilities within the selected institutions, many frowned at the way they were treated by lecturers and their fellow students. These statements were common, to include "*we are just here to fill a gap, it seems we are not wanted; lecturers treat us with disdain, we are not respected and sometimes struggle with our non-disabled counterparts…We lack help in various forms*."

Recommendations

In view of the above, facilities should be upgraded in our tertiary institutions to assist students with special needs to achieve their potential both socially and academically. This will influence smooth social and academic integration. There should be reorientation of society on the need to accept people with special needs unconditionally. This can be done through a constant awareness campaign in form of seminars and advocacy.

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INTEGRATION OF PEOPLE WITH DISABILITIES IN TRAVEL AND TOURISM INDUSTRY: OPPORTUNITIES AND CHALLENGES WITH EXAMPLES FROM ARUMERU DISTRICT, NORTHERN TANZANIA

Dickson J. Shekivuli
Penina P. Mwanga

Conceptual Framework and Background

Tourism comprises the activities of people travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes not related to the exercise of an activity remunerated from within the place visited (WTO, 2001). Tourism is a whole exertion of transportation, airlines, travels and tours agents, hotel industry, ferry companies, Information technology industry, and host community of tourism destinations (UNWTO, 2011).

Tanzania is endowed with many tourism attractions; more than 44% of Tanzania's land area is protected land. Tourism plays a very significant role in the national economy contributing about 17% to the national GDP. Tourism contributes 7% of the world export equivalent to 1.4 trillion US$, contributing 10% of the world GDP, employing 1 out of 10 global labor force making it second to the automobile and chemical industry (WTO, 2017). Developing countries are dependent on tourism as a source of foreign exchange and cultural understanding between travellers and host communities. In Tanzania the total contribution of Travel and Tourism to GDP was TZS10,526.7 bn (USD4,721.0mn), 9.0% of GDP in 2017, and was forecast to rise by 9.1% in 2018, and to rise by 7.1% per year to TZS22,790.8bn (USD10,221.2mn), 10.1% of GDP in 2028 (WTTC, 2018). In promoting human rights and equal opportunity, the tourism industry has been paying more attention to the needs of tourists with disabilities, recognizing that those people have the same needs and desires for tourism like others, thus leading to the concept of accessible tourism (Yau, 2004). According to (Morgan *et al.*, 2010) little attention is given to this area of tourism and it is under-researched, hence tourism researchers need to develop a broader conception of people with disabilities' experience and activities. This research based paper attempts to give an overview of the current situation with inclusive tourism in Tanzania based on the challenges and opportunities for integrating people with disabilities in travel and tourism industry.

Research Method

The research design used in this study is a case study research design. In this study the units described in details are National Park, hotels, restaurant and lodges. The purpose and objectives of the study and the theoretical foundation from the literature review considerably influenced the selection of case study research design since the study was aimed at collecting data from Arusha National Park, food and accommodation and tour operators in Arumeru District, considering the participation of people with disabilities in travel and tourism industry. Non probability sampling method was used where purposive sampling technique was applied to gather information to select respondents. The sample size involved 30 individuals selected purposively from the study area population. Primary data were collected through questionnaire survey, physical observation, and interviews while secondary data was collected through documentary survey. Collected information was analyzed through Statistical Package for Social Sciences SPSS V. 16.

Results

In the current study conducted in Arumeru district a majority of the respondents were male about (60%, n=17) and the rest were females. A majority of respondents were aged between 26-35 about (40%, n=11), followed by the age of 36-45 (23%, n=9). Education level of the respondents was assessed and the findings showed that a majority of the respondents interviewed were university graduates (40%, n=11), Diploma (22%, n=7); this was due to the increasing number of higher learning institutions offering training in travel and tourism business in the country.

It was also found that a majority of visitors were international visitors ranging from 1000-3000. Small segment of the visitors involved domestic visitors. In the study area an average of 15 visitors were reported to be people with disabilities (PWDs). From the studied area, the respondents said that there were physical or environmental challenges such as the presence of stairs 15.6%, the 16% rough surface in the access to the tourism facilities. Sixteen percent of the respondents stated that the old design of the accommodation recreation and the tour operators' offices was a challenge to the clients with disabilities; 15.6% said that the area of the hotel was too big that it was an environmental challenge for the clients.

However, a majority of the respondents reported the absence of assistive devices for people with disabilities. Very few accommodation facilities possessed assistive devices such as wheel chairs, walking sticks, and hearing aids. Further, 73% of the respondents admitted that there were no skilled personnel to serve the clients with disabilities in their organizations due to lack of trained staff. Job positions that could be offered to people with disabilities included ICT technicians, accountants, and front of the office work based on their skills and experience. About 80% of the respondents strongly agreed that people with disabilities could travel and enjoy tourism sites like other people. Further, 60% of the respondents agreed disabled people could be productive

when employed in the tourism industry. Seventy-five percent of the respondents strongly agreed that nondisabled tourists were positive travelers because they were aware that they had equal rights to travel and enjoy like any other person. Eighty percent of service providers interviewed strongly agreed that they were happy and confortable when serving PWDs. The interviewed respondents had different opinions, for instance they suggested that the facilities should be improved so as to match the growing demand of accessible tourism.

Recommendations

In order to meet the aim and objectives of inclusion of people with disabilities in the tourism industry, the following should be considered: hotels should offer individuals with disabilities person-friendly rooms with wider entrances, low-level switches, hand dryers, towels racks and beds; chair lifts and room information should be written in simple and concise language for people with cognitive disabilities.

Areas for Future Research

There is a need for further investigation on how the education sector can be improved to include in their training curricula accessible or inclusive tourism and well trained special needs tour guides to serve special needs visitors. Further, studies should be extended to technological advancement and innovation in designing accessible automobiles for game drives.

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BARRIERS OF HAVING A CHILD WITH A DISABILITY IN DEVELOPING COUNTRIES: UGANDA CASE STUDY

Walusimbi Moses

Background

Children with disabilities (CWDS) are a vital and valuable part of the society, yet most marginalized and vulnerable groups of people in developing countries like Uganda are abused, exploited, disowned, and excluded from the societies they live in, denying them their recognized rights. In Uganda, very few programs have been developed to rehabilitate and advocate for the rights of children/people with disabilities. Despite the efforts by different stakeholders to enlighten Ugandans about the need to treat all children as being equal, very many Ugandans have continued to have a negative perception about them. Children with disabilities are taken as sick, possessed or cursed and are considered as being of no use to society. This has negatively affected the delivery/provision of services thereby contravening their basic human rights like access to education, rehabilitation, health and food, freedom to associate, and the right to life. Because of stigma, most children with disabilities are abandoned on the streets, at cross roads, and sometimes dropped in pit latrines. This puts their life in jeopardy making their future uncertain.

Research

Uganda is a landlocked country located in East Africa with more than 34 million people and 14 million are children below the age of 15. A situational analysis in 2011 revealed that these children and their families were in dire need for support especially the socio-economic interventions. Families living with children with special needs often lack resources to cater to their needs and as a result, fulfillment of their rights is undermined. Despite children representing a significant majority of Uganda's population, they are the most vulnerable group. Of Uganda's 31 percent under the poverty threshold, 62 percent are children. CWDS have suffered disproportionately, the data relating to CWDS are scarce and to some extent, unreliable. However, the research study conducted by the United Nations Children's Fund (UNICEF) between November 2013 and February 2014, and also based on the estimates, the child disability prevalence is about 13% or 2.5 million people living with some form of disability in Uganda.

Like many developing countries, Uganda became a member and signed both the Convention on the Rights of the Child (CRC) in 1990 and the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) in September 25, 2008. Furthermore, the provisions are recognized in the constitution of 1995 and in most of the laws and policies establishing the rights of people with disabilities including, but not limited to, the Children's Act and People with Disabilities Act of 2006.

Initially, the provision of special education has been purely in the hands of charity organizations (NGOs) and some families who needed to educate their children. The development of services for persons with disabilities is either hindered or accelerated by the perception and conceptions a community has concerning the target group.

Although children have a right to access education, good health, food, and life this is not the case for children with disability and orphans in Uganda. Many parents have a negative attitude/perception towards providing the aforementioned basic necessities because some families attach disability to witchcraft, bad luck or a curse forcing other families to either hide their children with special needs or kill them. Therefore, children with special needs are vulnerable for a number of challenging including the following:

1- *Lack of effective participation.* There is limited involvement or no involvement of CWDs, their parents or guardians in formulation, dissemination, and implementation of the laws and policies that relates to them.
2- *Community misconceptions and stigma.* Community misconceptions and stigma remain associated with CWDs and homes of CWDs and this in turn leads to attitudes and behaviors of neglect, isolation, abuse and marginalization of CWDs by communities and families leading to increased discrimination.
3- *Inferiority complex.* CWDs always underestimate themselves before others in society. They think

they do not fit in the society like how other children do. This is visible in self-pity, loss of self- esteem, and non-reporting of human rights violations against them.

4- *Hunger.* It is a painful reality that CWDs go through hunger in their daily lives. Inadequate nutrition at a young age prevents CWDs from developing properly both physically and cognitive.

5- *Lack of community mobilization and advocacy.* This has been because of weak institutional framework as a result of lack of coordination between government institutions and civil society organizations of PWDs.

6- *School related challenges.* The enrolment rate of CWDs in pre-primary, primary, and secondary schools is very low. About 9% of CWDs attend school and only 6% of these children complete primary school and go to study in secondary schools according to a study conducted by UNICEF.

Recommendations

1. Review and enforce the Uganda legal and policy frame work;
2. Sensitization, awareness and reinforce the capacities of communities and stakeholders.
3. CWDS, their parents or guardians to be actively consulted on an ongoing basis in relation to the decisions that affect them directly or indirectly;
4. Ministry of Gender, Labor and Social Development to partner with the ministry of education to establish the child rights sponsorship fund for special needs.
5. School curriculum should be revised and increase funding of the special education units.
6. The Government should enforce the recruitment of special needs Education Assessment and Resources Services program (EARS).
7. Government should come up with the statistical information for CWDS
8. Nutritional counseling and encourage immunization of CWDS.
9. Implement program in education, health and rehabilitation fields.
10. The Government to partner with organizations of the child and disability movement.
11. Provision of disability friendly facilities and instructional materials.
12. The Government to enact a special secondary education policy to ensure consolidated and comprehensive service delivery;
13. Community mobilization and advocacy;
14. Parents of CWDS to form associations.

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TEACHERS' AND PARENTS' PERCEIVED INFLUENCE OF COMPUTER ASSISTED INSTRUCTION ON SELF-HELP SKILLS OF PUPILS WITH MILD INTELLECTUAL DISABILITY IN LAGOS STATE, NIGERIA

Oluwawumi Oyeyinka Oladipupo
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Abstract

The study examined teachers and parents perceived influence of Computer Assisted Instructions (CAI) on self-help skills of pupils with mild intellectual disability in Lagos State, Nigeria. The purpose of the study was to assess teachers' and parents' perceived knowledge, applicability, and effectiveness of computer assisted instruction among pupils with mild intellectual disability. The study adopted survey research method with a targeted population of 63 teachers and 30 parents of pupils with intellectual disability to make the total sample of 93 participants purposively selected in seven special schools in Lagos State, Nigeria. The instrument used for the study was a questionnaire (r=0.83). The information collected was analyzed using simple percentages and t-tests, the findings revealed that more teachers had the knowledge of CAI than parents. The perception of teachers and parents on the effectiveness of CAI in the acquisition of self-help skills was positive but teachers perceived CAI to be more effective than parents. Parents and teachers of pupils with intellectual disability perceived the applicability of CAI alike. It was observed that parents' and teachers' perceived CAI to be most applicable in the area of eating and purchasing of items. The study recommended that teachers and parents needed more training on CAI and should create opportunities for pupils with mild intellectual disability to utilize components of CAI for learning self-help skills. Stakeholders in education of pupils with intellectual disability should make CAI components readily available in both private and public special schools.

Background

Premium is placed on education because it is regarded as the tool for economic, technological, and social advancement in any society. Pupils with mild intellectual disability manifest deficits in cognitive skills, social skills, home living, leisure, self-direction, functional academics, use of community facilities, and self-help skills (AAIDD, 2010). Okoko (1998) observes that every good curriculum for pupils with mild intellectual disability should contain self-help skills. Self-help skills are the foundational blocks for attaining independence and functional living in the society. Despite their significant limitations, pupils with mild intellectual disability can acquire them if teaching methods are applied effectively. These skills must be developed in whatever the setting, whether home or school, for maximum independence. Development of such skills may assist pupils with mild intellectual disability to increase autonomy, co-dependence and nurturing problem-solving in the house, school and in the whole community at large (Lombardi, 2011).

Teaching self-help skills to children with mild intellectual disability is very important to make them independent and functional in the society. Unfortunately, pupils with mild intellectual disability are slower in interpreting information, reasoning, and problem solving as well as experience problems attending to relevant aspects of a learning situation (Oyundoyin & Oyefeso, 2016). Great strides have been achieved in developing age-appropriate methods and experiences to provide appropriate support to help the child successful in mastering these skills. CAI has shown promise to help achieve this goal. CAI could be used as a supplemental to traditional instruction or as replacement for traditional instruction even for pupils with mild intellectual disabilities as implied in UNESCO (2011).Teachers and parents regularly interact with these children and provide them instruction to improve this learning. There is need for teachers and parents to adopt best practices to help facilitate self-help skills acquisition in children with intellectual disability. However, only little is known pertaining teachers and parents perceived influence of CAI on self-help skills among children with mild intellectual disability. This study investigated the teachers and parents perceived influence of CAI on self-help skills among children with mild intellectual disability in Lagos State, Nigeria.

Research Questions

1. What is the knowledge of CAI among teachers of children with mild intellectual disability?
2. What is the knowledge of CAI among parents of children with mild intellectual disability?
3. What is the perceived applicability of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability among teachers?
4. What is the perceived applicability of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability among parents?
5. What is the perceived effectiveness of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability among teachers?
6. What is the perceived effectiveness of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability among parents?

Hypotheses

Ho_1 There is no significant difference in the knowledge of computer assisted instruction between teachers and parents of children with mild intellectual disability.

Ho_2 There is no significant difference between the perception of teachers and parents in the applicability of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability.

Ho_3 There is no significant difference between the perception of teachers and parents in the effectiveness of computer assisted instruction on self-help skills acquisition in children with mild intellectual disability.

Method

Research design. This study adopted a descriptive research design. The research design is used to investigate teachers and parents perceived influence of CAI on self-help skills among children with mild intellectual disability in Lagos State, Nigeria. The design of this study was used because no variable was manipulated in this study.

Population. The population of this study is made up of teachers and parents of pupils with mild intellectual disability in Lagos State, Nigeria. Ninety Three (93) participants were purposively selected from seven special schools for the study.

Instruments. The instrument used to elicit responses in this study is tagged 'Perceived Influence of Computer Assisted Instruction on Self-Help Skills'. It was a structured self-designed instrument. The questionnaire is divided into three (3) sections. Section A contained questions on demographic information of the respondents, while B and C, sourced for information on applicability and perceived effectiveness of CAI in enhancing self-help skills of pupils with mild intellectual disability

Instrument validation. In order to determine the validity of the research instrument, the researcher ensured that the items of the questionnaire corresponded with the objectives of the study. The content validity of the questionnaire was also ascertained by experts in the field of special education. The reliability of the instrument was derived by administering the research instrument to fifteen (15) teachers and ten (10) parents of pupils with intellectual disability in Oyo State, as a pilot study. This was done prior to the final administration of questionnaire on the intended respondents. The data obtained was analyzed to obtain an overall reliability coefficient of 0.83 ($r = 0.83$).

Data analysis. Data collected was analyzed using simple percentages and t-test at 0.05 level of significance. Simple percentage and frequency counts were used to analyze the demographic variables and provide answers to the research questions. T-test was used to test for significance differences in the hypotheses.

Results and Discussion

Teachers and parents have good knowledge of CAI; 82.9% of teachers indicated having good knowledge of CAI while 71.9 % of parents were in agreement, which shows that more teachers had the knowledge of CAI than parents. The perceived applicability of CAI was considered in the area of personal care and hygiene, dressing, eating and purchasing of items. It was clearly observed that both teachers and parents perceived the applicability of CAI alike in the areas of eating and purchasing of items. Moreover, the perception of teachers and parents on the effectiveness of CAI in the acquisition of self-help skills for children with mild intellectual disability was good but the results indicated that teachers perceived CAI to be more effective than parents.

Recommendations

Teachers and parents of children with mild intellectual disability should be trained on how to facilitate instruction and learning using latest developments in CAI. Teachers should create opportunities for pupils with mild intellectual disability to utilize components of CAI for learning self-help skills. Stakeholders in education of pupils with mild intellectual disability should make CAI components readily available for acquisition of self-help skills among pupils with mild intellectual disability in both private and public special schools.

Suggestion for Further Study

Future research should consider a comparative study on the applicability and effectiveness of CAI on learning outcomes among pupils with mild, moderate, and severe intellectual disability. Moreover, researchers can also develop CAI programs that will be useful for teaching pupils with intellectual disability self-help skills.

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SECONDARY SCHOOL STUDENTS WITH OPPOSITIONAL DEFIANT DISORDER IN VIETNAM

Le Thi Minh Ha
Nguyen Viet Thanh

Conceptual Framework and Background

Teenagers have to face many challenges during their development. Significant changes in psychology, physiology, and hormones make the central nervous system unbalanced and stimulation stronger than inhibitions, causing strong emotions and irritation. Teachers usually talk about 'special' students in their class. These students argue with adults, deliberately break rules, and act aggressivily, expressing feelings of hatred and anger with friends. These behaviors negatively affect their learning process and outcomes as well as other people. Moreover, parents feel sad when their children have inappropriate behaviors. If some of these behaviors last more than 6 months, they can be considered as signs of oppositional defiant disorder (ODD).

Researchers found out that ODD is the precursor of conduct disorder and may cause antisocial personality disorder (American Academy of Child and Adolescent Psychiatry, 2009). However, this will not happen with every individual who has ODD. In fact, 25% of children with ODD may have a conduct disorder. Furthermore, it is required that antisocial personality disorder needs a diagnosis of conduct disorder before the age of 15 (Diagnostic and Statistical Manual of Mental Disorder, 5th Edition, 2013). Many experts in educational psychology have done research about ODD to prevent it from developing into conduct disorder because it can lead to negative effects for an individual as well as a society. ODD can cause a high risk of depression, anxiety, and substance use and can become antisocial personality disorder (American Psychiatric Association, 2012-2013).

According to the DSM-V (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition), ODD has the following signs:

1) Often being angry, irritated, argumentative, or challenging, or expressing hatred for more than 6 months. An individual will have at least one of the following symptoms when interacting with at least a person who is not his or her siblings.

- Stimulated emotions: (i) Losing control; (ii) sensitive or annoyed; (iii) Often angry and resentful.
- Argumentative/challenging behaviors: (iv) Arguing with children, teenagers, and adults; (v) Avoiding performing requirements or rules; (vi) Often deliberately disturbing others; (vii) Often blaming others for their mistakes or misconduct.
- Feeling hatred: (viii) at least twice in six months.
  For individuals from the age of 5 and above, behaviors must occur at least once a week over the course of six months (Standard A8).

2) Problem behaviors negatively affect occupational, social, and educational areas or others including family members, friends, and co-workers.

3) Criteria do not belong to psychosis, depressive disorder, bipolar disorder, anxiety disorder, and substance use and addiction.

Research

Step 1: By using the short version of Conners scale with 699 secondary school students in grades seven to nine were able to assess themselves. Parents and teachers were also able to assess their children with the same version.

Step 2: The total scores were calculated for each assessment scale and turned into into t-scores based on the score board of Conners. This was used to identify the number of students who had ODD.

Step 3: Parents and teachers who worked with students with ODD were surveyed to identify signs of ODD in these students and figure out reasons of ODD and effects of ODD on the students' life.

Results

Signs of ODD in secondary school students. Seventy-nine out of 699 students assessed themselves as having ODD (60 – 90 points); 54 out of 699 parents assessed their children with ODD; 182 out of 699 teachers assessed their students with ODD. There was a strong correlation among the assessment of students, parents, and teachers. About 38% were man and 64% were woman. Seven percent of students were in grade seven. About 43% of students were in grade eight and 50% students were in grade nine.

Signs of ODD in secondary school students as assessed by teachers. Students were easily angry with small things, finding it difficult to control their anger (8.9%), arguing with teachers and friends, displaying dominating aggression (10.1%), showing frustrated face (11.4%), easily losing control and getting angry (10.1%), belittling teachers (10.1%), denying performing teachers' requirements (11.4%), deliberately disturbing friends (10.1%), planning to sabotage and steal things from friends (3.8%), hating and trying to take revenge (3.8%), not following rules of a class and school (10.1%), and saying things to get what they wanted regardless of anything (10.1%).

Signs of ODD in secondary school students as assessed by parents. Students were easily angry with small things, finding it difficult to control their anger (9.5%), arguing with others, and displaying dominating aggression (4.8%), showing frustrated face (19.0%), easy losing control and getting angry (19.0%), belittling others (14.3%), denying performing adults' requirements (7.1%), deliberately disturbing others (9.5%), hating and trying to take revenge (9.5%), and saying things to get what they wanted regardless of anything (7.1%).

Reasons of ODD. Family atmosphere was the main reason causing ODD for secondary school students. ANOVA showed a connection between the assessment of students and family atmosphere. About 88% of teachers also confirmed that dysfunctional families can cause ODD.

Effects of ODD on learning outcomes and ethics of students. Case studies showed that ODD had negative effects on students' academic performances and class' competitive outcomes. Moreover, ODD made parents and teachers worried and sad. Teachers' observations showed that some of the students with ODD had signs of conduct disorders such as disruptively leaving a classroom without teachers' permission and disruptively leaving their house without their parent's permission. It is essential to have more research in different areas.

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SPECIAL/INCLUSIVE EDUCATION TRAINING: HOW LONG SHOULD IT BE?

Donald Nongola

Training of Special Education Teachers in Zambia

Year-in and year-out, many learners with disabilities in Zambia do not perform well in national examinations. This is despite the fact that they are taught by well qualified teachers who have bachelor's degrees. The learners do not take basic subjects like Mathematics, Sciences, and Computer Studies, subjects considered compulsory in the national policy (MoE, 1996). Additionally, attrition rates of teachers from special and inclusive schools to the 'general' schools are also quite high. These factors prompted the researcher to question the type of training teachers of special and inclusive education received.

In Zambia, the training of teachers in Special Education is offered by the Zambia Institute of Special Education (ZAMISE) and the University of Zambia (UNZA) that offer diplomas and degrees, respectively. Despite possessing the papers, the graduates do not appear to have sufficient skills for teaching learners with special educational needs (LSEN). It is often heard from senior officers in the Ministry that learners with special needs cannot do certain subjects, instead of blaming the education system that has failed to find solutions. A Bachelor's degree at UNZA is four years and other universities such as Nkrumah and Chalimbana University have also adopted the four-year period for a Bachelor's degree in Special Education.

The general teaching subjects at diploma level in Zambia takes three years (CDC, 2013) and ZAMISE has started offering both special education and the teaching subject. The Bachelor's degree has also adopted a major in special education and teaching within the four years. The question is, when do the students learn how to adapt the curriculum since LSEN need the curriculum in different formats?

Conceptual Framework

The 'general' Bachelor's degree takes about four years, and that includes the mastering of skills in the teaching subjects. An additional year or two, depending on the complexity of the subject, is required to learn how to adapt the teaching subjects to suit LSEN. Learning to adapt Mathematics and Science especially may require more time than social sciences.

Role of Special Education Teachers

A special education teacher has to modify the general education curriculum to make sure each student's special individual needs are met (BBB Accredited Business, 2019). This suggests that a special education teacher needs to have two skills: understanding the general curriculum as well as the skill to adapt the work. The general curriculum is common in many universities but the latter tend to be avoided, implying that it could be a little difficult or that less research has been instituted into it.

General Training of Special Education Teachers

Research has shown that teacher training has often hindered special needs education. Mader (2017) noted that one lady who had earned a bachelor's degree and a teaching certificate in math instruction for teaching students with disabilities had challenges on the job. She had to figure it out on the job. This suggests that teachers gain more skills from the schools than from the higher institutions of learning.

Method

This research was done via Internet. A sample of institutions of higher learning identified as being of top quality with regards the provision of quality training had their curriculum investigated. The academic excellence of the institutions followed the standard academic reputation rankings such as regional accreditation and additional accreditation from the main educational accreditation bodies. The attributes

mainly looked at included the length of their Bachelor's degree and the strength for adaptation of their training programs into accessible formats for learners with disabilities (Guerra, 2015).

Research findings

College Choice (2019) found that best Bachelor's of Science in special education degrees were accredited and most programs had additional accreditation from the main educational accrediting bodies. A few of these top universities shall have their special education programmes discussed here.

According to the College Choice (2019) the degree in special education at Vanderbilt requires an extensive field internship. It is completed within four years. The University of Texas at Austin also surpasses most state universities in the amount of field experience. The emphasis at the University of Illinois is commitment by students to helping individuals with disabilities. The students earn their degree within four years. At Michigan State University and University of Georgia, the special education program takes five years, and this allows students to engage in a rigorous internship experience; hence, graduates enter the workforce fully prepared. Students at the University of Georgia also benefited from small class sizes. At Indiana University there were two undergraduate programs for students interested in special education: the B.S.E.D. in primary special education and the B.S.E.D. for teaching at secondary special education. The latter allows students to choose English, Mathematics or Science as a content specialized area. At Bradley University, they had a unique program where students engaged in field experiences in their first year. At Akita University (2019) special education programs led to specialization into courses for particular categories of disabilities.

Conclusion

The research has shown that in order to improve the preparation of special education teachers, the training could still be the usual four years, but other institutions feel it should five years for the Bachelor's degree. Emphasis has also been put on strengthening the school teaching practice to be relatively longer than the 'general'. There is also need to move from general courses to more specific courses that target the learners either at primary or secondary level of education, and also having in mind the category of disability. Furthermore, the training should also accommodate aspects of inclusive education as embraced by the Sustainable Development Goal number 4 that says that 'no child should be left behind' (ACBRAN, 2017). Instead of complaining that some learners with disabilities cannot learn, teachers should be concerned with finding effective pedagogies (Nongola, 2017).

Suggestions for Future Research

This paper has determined that the training period for teachers of learners with special educational needs need to be relatively longer than the 'general'. Further research should try to determine the actual length of the training an effective special education teacher needs.

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AWARENESS OF INCLUSIVE PRACTICES AMONG PRE-SERVICE TEACHERS IN NIGERIA

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Emmanuel Olufemi Adeniyi

Conceptual Framework and Background

The concept "inclusive education" as it is known today has its origins in special education. This system of education opposes the practice of separation and it is based on the notion of equity. Inclusive education accepts all children as they are, providing them with adequate resources and support according to their needs. In view of this, the Nigerian National Policy on Education (2004) stipulated that people with disabilities should be educated in regular schools along with their non disabled peers.

Regular education teachers are the pivot on which inclusive education stands. Their relevance to the success of inclusion is so important that the world cannot afford to ignore them (Oladele, Ogunwale, & Dafwat, 2016). However, biggest challenge this system face is that of awareness about inclusive education, particularly among teachers. According to Kafia (2014), one of the most important factors influencing the success of inclusive education is educators' training referring both to the university preparation. The reason children with disabilities are especially vulnerable in regular education setting is that teachers do not know how to deal with these children. This might be as a result of a lack of awareness of inclusive education and its practices among teachers which should have been created during their training period. Nketsia and Saloviita, (2013) averred that pre-service teacher training has been identified as one of the key factors in the promotion of inclusive education.

One of the major barriers to inclusive education, the majority of which were also recognized by researchers in developing countries is the lack of teacher expertise in planning and providing for students with special education needs, including the gifted and talented (Closs, Nano, & Ikonomi, 2003). A study by Nketsia and Saloviita, (2013) on pre-service teachers' views on inclusive education in Ghana showed that almost all of the participants had been introduced to the concept of inclusion during their studies. Meanwhile, Haugh (2003) stated that if pre-service teachers enter the teaching profession with confidence and positive attitudes towards teaching in inclusive classrooms then it is likely to result in their use of more successful inclusive practices and a continuation of these good practices throughout their career. Nes (2000) as well as Lambe and Bones (2006) contend that the pre-service training stage of a teaching career can be the most effective time to nurture

favorable attitudes and build confidence through the provision of high quality training. Tait and Purdie (2000) concluded that even a 12-month teacher training course had very little effect on pre-service teachers' views about disabilities and inclusion. These findings resonate with Nagata (2005) who asserts that a single subject dealing with inclusion cannot properly prepare beginning teachers to execute the multitude of tasks associated with inclusive practice, as well as cope with the demands of an inclusive classroom. Both pre-service and newly qualified teachers appear to lack requisite skills and understandings of inclusive settings (Sharma, Forlin, & Loreman, 2007). Kraska and Boyle, (2014) found that the way pre-service teachers feel about inclusion will impact on how successful they are in upholding inclusive principles in their future classrooms.

Fender and Fiedler (1990) noted the need for better training in inclusive practices for general education teachers. Kearney and Durand (1992) emphasized a need for improved coursework related to inclusive practices. Mngo and Mngo (2018) found that resistance to the inclusive practice is linked to inadequate or complete lack of teachers' preparedness and that younger less experienced teachers with no training in special education indicated less enthusiasm regarding the benefits of inclusion, their ability to manage integrated classrooms, and teach students with disabilities. Allday, Neilsen-Gatti, and Hudson (2013) observed that historically teacher education programs have not been responsive to the inclusion movement. In light of the foregoing, this study attempted to examine the awareness level of inclusive practices among pre-service teachers in southwest Nigeria.

Research Questions

1. What is the perception of pre-service teachers towards people with disabilities in southwest Nigeria?
2. What is the level of awareness of inclusive education among pre-service teachers in southwest Nigeria?
3. Is there gender difference on the level of awareness of inclusive education among pre-service teachers in southwest Nigeria?

Method

The states from where participants were sampled in this study were Oyo, Kwara, Ogun, and Osun. The participants for the study comprised three hundred and fifty pre-service teachers in eight higher institutions across the states mentioned. A self constructed questionnaire tagged; Awareness of Inclusive Education Questionnaire (AIEQ) was administered in this study. Fifteen items were formulated, and the questionnaire was rated on a four point likert scale of Strongly Agree (4); Agree (3); Strongly Disagree (2); and Disagree (1). A Cronbachs alpha of 0.72 was obtained for the instrument to determine its reliability during trial testing. The validity of the instrument was established using item total correlation that ranged between 0.5 and 0.9. Level of significance was set at 0.05. Data were analyzed using simple percentage.

Results

The perception of pre-service teachers towards persons with disabilities is still on the negative side as most of the participants strongly agreed that disabilities are not contagious but they still feel unease interacting with people with disabilities. The participants in this study who are supposed to be custodians of inclusive education are barely aware of the concept of inclusion. Many respondents strongly agreed that:

The curriculum for learners with disabilities should be different from that of their non-disabled counterparts, teaching different types of people with disabilities with support personnel in the same classroom alongside their non-disabled counterparts is not the best practice, the presence of children with diverse disabilities in a regular classroom would be stressful, difficult and can cause confusion in the whole school system, learners with disabilities should have separate special schools that are different from the schools for the non-disabled, Most respondents averred that they cannot cope in schools/classroom where learners with disabilities are found because teaching them would amount to more work and more worries for them. Many of the participants are not aware of inclusive education and its practices. The result also shows that both genders are barely in support of inclusive education. It is therefore deduced from the ongoing that lack of awareness of inclusive

education by the custodians of inclusionary practices (pre-service teachers) would adversely affect its practice in Nigeria.

Recommendations

The curriculum of teacher training institutions should be adapted to suit the needs of learners with disabilities. Pre-service teachers should be exposed fully to inclusive system of education and it practices and should be allowed to have their teaching practices in schools for people with disabilities. There should be more public enlightenment through the media on disability and people with disabilities. There should be in-service training for regular teachers.

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AUTISM KNOWLEDGE TRAINING FOR TEACHERS IN TANZANIA: THE MOBILE PHONE SOLUTION

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Background

Autism spectrum disorder (ASD) is the most common neurodevelopmental disorder among children, with approximately one in every 59 children diagnosed in the United States (The Centers for Disease Control and Prevention, 2018). Although it is a lifelong condition, an early diagnosis and empirically-based treatment interventions have proven to significantly improve the outlook for individuals with ASD (Elder, Kreider, Brasher & Ansell, 2017). As the national prevalence of ASD continues to rise, there remains a shortage of resources and services to address the needs of children who are diagnosed (Vismara, Young, Stahmer, cMahon & Rogers, 2009). There is an urgent need for more teachers and trained professionals who have the appropriate knowledge to serve children with ASD (Johnson, 2018; Shady, Luther & Richman, 2013).

Professional ASD training is crucial to improve teacher preparation, however traditional face-to-face trainings may no longer be the most effective option as the training may not be accessible to all childcare professionals and does not always garner adequate participation (Brock, Huber, Carter, Juarez & Warren, 2014). In order to ensure that education of all children with ASD is prioritized, training that is easily accessible, engaging, and effective in increasing the knowledge and skills of teachers who work with children with ASD needs to be made an immediate priority (Allen-Meares, MacDonald & McGee, 2016).

The Present Research

The present study depicts an online training launched in Tanzania, which delivered ASD knowledge to teachers using mobile phone technology. The content of the training was based on the material developed by OMPACO (Organization for Psychological and Medical Assistance for Children Overseas), a U.S. social benefit organization that has been providing ASD knowledge trainings in Tanzania since 2011. The online training included information about ASD in seven modules with each module followed by a brief quiz to assess user knowledge. One hundred teachers in Arusha, Tanzania were notified of the opportunity to access the web-based training on their mobile phones, available in either English or Swahili. The nature of this distance-based platform offered valuable ASD knowledge in a way that maximized convenience and accessibility for participating teachers.

Results

Total user participation for the mobile phone training was high, with 84 total users accessing the training (Swahili version = 50 users; English version = 34 users). Results of a frequency analysis ran on the individual modules indicated that the sections with the highest user participation were “Etiology” for English users (N = 28) and both “Assessment and Diagnosis” and “Teaching Strategies” for Swahili users (N = 25). The least frequently accessed module for English users was “Teaching Strategies” (N = 20) and “Behavior” for Swahili users (N = 17).

In terms of quiz outcomes, the individual module with the highest average quiz score was “Individualized Education Program (IEP)” for both versions of the training (English = 96%; Swahili 73%). The module with the lowest average quiz score was “Etiology” for English users (71%) and “Assessment and Diagnosis” for Swahili users (62%). Users who completed the training in English reported higher average combined quiz scores (M = 82.86%) than users who completed the training in Swahili (M = 67.14%).

Future Considerations

The overall user participation rate of 84% was a promising finding regarding teacher willingness to participate in the training, which is consistent with research reporting the favorability of distance-based training among teachers (Rakap, Jones & Emery, 2014). The breakdown of user access between modules highlights areas of teacher interest in ASD knowledge. These findings are of particular importance for the development of trainings of this type in the future, as they provide an indication of teacher preferences and strengths among the available categories of training.

Interpretation of the results is tentative at this point. Differences in participation rates between modules may be due to the order of the modules in the training. In addition, fatigue or response burden may be possible confounding factors in the current study. The high response rate compared to the total of individuals recruited (84/100) was a positive finding in the current study, and a consideration for future research is to increase the number of teachers with the opportunity to participate. Based on these findings and the feedback received, the training content can be revised and expanded to different regions of Tanzania. These results provide an encouraging step towards bringing ASD awareness to the global community via the use of distance-based training.

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ENVIRONMENTAL FACTORS AS DETERMINANTS OF VOCATIONALTRAINING AMONG PEOPLE WHO ARE BLIND IN NIGERIA

Ekeledirichukwu E Ejimanya
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The present study focused on environmental factors as determinants of vocational training among people who are blind in Nigeria. According to the World Health Organization (WHO) blindness is a visual acuity of less than 3/60 or corresponding visual loss to less than 10 degrees in the better eye with the best correction (WHO, 2004). Historically, people who are blind have been marginalized in the labor market because of the pervasive misconception that they are unfit for work. In Nigerian society where the unemployment level has reached an all-time high, the prospect of employment for people who are blind is limited.

Some reasons often cited for the high level of unemployment among people who are blind include physical inaccessibility of the workplace environment, social prejudice about the lower productivity, lower education attainment and lack of professional training in the areas demanded by employers of labor (Sinyavskaya & Vassin, 2003). As a result, the idea of vocational training for people who are blind is mooted. Many people in society believe that people who are blind are mostly capable of professions in the vocational sector. Vocational training is popularly known as "education for work" and it is designed to meet the individuals' need for employment. It focuses on providing the learners with practical skills and knowledge needed for successful transition to the workplace.

However, one observes that certain environmental factors such as accessibility and parental attitude are associated with vocational training for the blind. Accessibility is the degree to which a system is useable or the degree of ease with which it is possible to reach a certain location from other locations (Nwachukwu, Abdulsalami, & Paulina, 2014). It particularly refers to the freedom of choice to enter, approach and communicate with, and make use of a situation. Unlike the developed countries, Nigeria has not developed supports to facilitate access by the blind to vocational training within active labour market policies. In Nigeria, people who are blind face barriers to access vocational training occasioned by the surrounding socio-economic environment and from the mainstream vocational training institutions (Murgor, Changa'ch, & Keter, 2014).

Access to vocational training for t people who are blind often centers on key themes such as lower education, lack of information or training materials in accessible formats, the physical environment, gender, and insufficient number of training centers. A large number of people who are blind lack access to basic education and are deemed unqualified to join skills training courses which result in lack of confidence, low expectations, and low achievement. Skills training involves building confidence and changing perceptions (International Labor Organization, 2010). The physical environment particularly constitutes a critical barrier to vocational training access by people who are blind. For instance, most of people who are blind students find it difficult to navigate their way around the building environment of the training centers because of architectural barriers of the built environment.

Apart from accessibility, parental attitude is another factor predicting vocational training for people who are blind. Attitude is how one perceives an object or idea and it can be negative or positive. Many parents erroneously view vocational training as an option for the 'dull' and they prefer their children attend conventional institutions that would guarantee their employment in prestigious professions such as medicine, engineering, teaching and law amongst others. The negative attitude of parents to vocational training program also stemmed from their ignorance or poor understanding of national needs and priorities.

Some parents viewed vocational training skills as inferior and not competitive enough to attract high-income jobs in the labour markets (Aryeetey, Doh, & Andoh, 2011). Others felt that vocational training is for the handicapped and school drop-outs. Similarly, while some parents believe that girls who study industrial and technical education often find it difficult to get married, others perceive that religious beliefs do not allow girls to study male-related vocational courses (Kissim, Omolade, & Rachael, 2011). Okocha (2009) revealed that parents were aware of the employment value of vocational education, but they still believed in the superiority of professions like Law, Medicine, and Accountancy to Technical Education and Vocational Training-related jobs. This finding revealed deeper societal prejudice against manual labor. However, a handful of parents have positive attitudes towards vocational training because they feel vocational centers provide opportunities for all to receive education according to their abilities (Saiti & Mitrosili, 2005).

In conclusion, we recommend the establishment of more vocational training centers specifically for people who are blind and the need to expose them only to blind-specific training. Besides, government should address the challenge of physical accessibility of the vocational training environment. More importantly, parents should be enlightened on the prospects of vocational training to generate lucrative employment.

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INTEGRATING THE SIOP MODEL AND THE UDL APPROACH IN DEVELOPING LESSON LANGUAGE OBJECTIVES

Olga Shonia
Martha G. Michael

English language learners (ELLs) struggle daily to blend new language and content knowledge together in a way that builds strong communication and comprehension skills. This also applies to students identified with specific learning disabilities, whose processing of language in a variety of forms proves difficult. Educators at the higher education as well as preK-12 levels need the right skills to help students succeed. In order for preK-12 students to learn how to learn (Rogers, 1969; Weibell, 2011), it is necessary to teach them the skills of language acquisition and use.

The Sheltered Instruction Observation Protocol (SIOP) Model, as well as the Universal Design for Learning (UDL) framework, were developed to facilitate high quality, accessible instruction for students who struggle to learn, students with limited language processing skills, or students with disabilities (SWD). SIOP and UDL are now used in hundreds of schools across the U.S. to assist in designing quality teaching programs (Meyer, Rose, & Gordon, 2014; Echevarria, Vogt, & Short, 2013).

Application of the SIOP teaching model has been well documented as one of the effective ways to both scaffold instruction for English language learners and to enhance one's overall quality of lesson delivery. The SIOP is a research-based observation instrument that has been shown to be a valid and reliable measure of planning, instruction, and assessment (Guarino, Echevarria, Short, Schick, Forbes, & Rueda, 2001). All features of the SIOP model are aligned with current research on instruction for ELLs. They include eight interrelated components: lesson preparation, building background, comprehensible input, strategies, interaction, practice/application, lesson delivery, and review/assessment. Using instructional strategies connected to each of these components, instructors are able to design and deliver lessons that attend to both the academic and linguistic needs of English learners as well as the rest of the students in one's classroom.

According to National Assessment of Educational Progress (NAEP), all students may benefit from technological interventions promoted through applying the UDL framework to improve education outcomes. The 'universally designed' ideas generated not only benefit students with differing physical, learning or intellectual abilities, but also those students who are English Language Learners (Ok, Rao, Bryant, & McDougall, 2017).

This concept has been applied to school curricula, where all students' needs are taken into account during the curriculum mapping stages in order to design an egalitarian and accessible content delivery system (Michael & Trezek, 2006). The necessity to embody this conceptual change in teacher education programs is warranted.

The three essential qualities inherent in UDL are multiple means of representation, engagement, and action and expression, and reflect the concentration of the SIOP model on assisting with language graduated scaffolding (Rose, Meyer, & Hitchcock, 2005). The development of *language objectives* in the planning of curriculum is one of the key features of the SIOP model which has been well received in the ESL/ENL (English as a Second/New Language) community. These differentiated approaches allow students to flourish in an environment conducive to learning in the style, mode, and presentation most comfortable to them, while allowing students to have a voice in the way they are educated in order to be as engaged as possible. Choices are built into the instruction, and this feature benefits students who have difficulties with content taught in traditional ways, while is also effective with students who may not have difficulties learning through the traditional formats, such as lecture, and drill and practice. This means that teacher training must include a variety of methods of how to teach content effectively and flexibly, and not just include a focus on traditionally taught content alone (Guarino et al., 2001). Modeling with intentional and explicit instruction regarding these methods is necessary.

However, creating effective language objectives in the planning stages within units and lesson plans (as is required by both the UDL and SIOP models) in order to enhance the delivery and reception of content being taught, is not always easy. It is crucial to enlist the help of pre-service educators to learn how to write effective and measurable objectives within each lesson plan created. Best practices of lesson planning procedures during pedagogy and student teaching experiences of students in the TESOL endorsement program, as well as other content areas in the Education Program (Science, Math, Social Studies, Language Arts, Music, and Art. Education) with focus on developing language objectives based on the content objectives for a particular lesson and standard will be shared with examples or all content areas and all grades (preK-12).

To begin, the 5 components of language, phonology, morphology, syntax, pragmatics and semantics, need to be instructed with examples and non-examples so that preservice candidates can readily use them in their planning and teaching of preK-12 students. This knowledge facilitates use of language objectives in the classroom curriculum planning and can be incorporated into a whole school approach, much like schools that have immersion approaches.

In order to educate pre-service teachers how to teach these approaches, they must include them in their unit and lesson planning regularly. Measurable language objectives in all content areas that include evaluation criteria help with establishing a baseline or present level of performance or Vygotsky's ZPD, in order to then see progress of student learning.

One example of language objectives similar to those to be shared during our presentation follows: *Standard: Mathematics: 3.NF.3*: Student will explain equivalence of fractions and compare fractions by reasoning about size. *Content Objective*: Given 10 fractions, identify pairs of fractions as either 'equivalent' if the same size or at the same point on a number line with 80 percent accuracy. *Language Objective*: Explain to the class why the chosen fractions are equivalent by using a visual fraction model and language of *greater than, less than or equal to,* with 80 percent accuracy.

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MOVING THE INCLUSION NEEDLE: FROM PROXIMITY TO INTERGRATION

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Conceptual Framework and Background

From separate schools to mainstreaming, the road to inclusion has been paved with good intentions, but fraught with false starts. Sadly, students with disabilities are still often excluded from the general education community.

The goal of mainstreaming, as suggested in the 1975 Education for All Handicapped Children Act in the U.S., was to ensure that students receiving special education services would receive instruction in a general education classroom to the degree appropriate based on their skills and abilities. At that time, mainstreaming most often consisted of placements resulting in proximity, but not integration. Thus, the letter of the law was met, but not the spirit of the law. The last decades of the 20th century saw more students being served in their home schools, but still largely in partially segregated, more restrictive settings. The mid 1990's saw the reauthorization of U.S. special education legislation with the Individuals with Disabilities Education Act (IDEA). The IDEA brought with it a shift to 'Person First' language and an emphasis on strengths and abilities rather than deficits. A preference for inclusion was suggested in the legislation. IDEA also ushered in a paradigm shift where all students, regardless of their ability, are acknowledged as deserving the right to be educated alongside with their non-disabled peers. Thus, inclusion was seen not as a place or something you

do, but as something you believe (Dieker & Powell, 2014) and a universal human right. The premise of inclusion centered on the idea that a person with a disability was part of, not apart from, the community of learners.

Despite our best intentions, we have still not fully realized the goal of inclusion. The reasons are many and include a persistent disagreement over the very purpose, practice and necessity of inclusion. For example, the efficacy of inclusion can be affected by teachers' beliefs about disability. Some teachers are less likely to take responsibility for their students with disabilities when they believe that disability is a fixed and immutable characteristic. Conversely, some teachers are more likely to engage positively and take responsibility for students when they believe that disability is a function of the interaction between an impairment and the learning environment (Jordan, Glenn, & McGhie-Richmond, 2010).

If we are to make inclusion work and 'move the needle' from where we are to where we want to be, we must remove the vestiges of a system that presupposes exclusionary educational arrangements to one that "dons the robes of democratic and just participation for all" (Sealander, Lanterman, Novelli, Sujo-Montes, & Lockwood, 2017, p. 254). This premise implies that all stakeholders must be prepared to reconsider the very core of a society's beliefs, training, and practices. We propose the critical importance of two key elements -- the role of teacher preparation programs and the role of teachers' cultural assumptions and beliefs.

Role of Teacher Preparation Programs

Teacher preparation programs (TPPs) are logically situated as proving grounds for the types of knowledge, skills, and dispositions that will assist future teachers in moving the inclusion needle. Most TPPs in the U.S. provide preservice teachers with the knowledge and skills to understand characteristics of disability and classroom management (Allday, Neilsen-Gatti, & Hudson, 2013). Numerous studies on preservice teachers' dispositions or beliefs about inclusion suggest greater opportunity for the efficacy of TPPs in this arena (Cook, 2002; Kurth & Forber-Pratt, 2017).

One factor essential to moving the needle from proximity to integration, or placement to inclusion, is arguably a shift in teachers' beliefs about the nature of disability, as suggested by Jordan, Glenn, and McGhie-Richmond (2010). Preservice teachers' beliefs are notoriously difficult to change (Richardson, 1996). Still, self-reflection on beliefs and practices (Brownlee, Purdie, & Boulton-Lewis, 2001; Frederick, Cave, & Perencevich, 2010) and fieldwork experiences involving individuals with disabilities (Swain, Nordness, & Leader-Janssen, 2012) are elements of TPPs that show such changes. Additionally, training in universal design for learning within TPPs can also positively impact preservice teachers' beliefs about disability and inclusion (Lanterman & Applequist, 2018).

Role of Beliefs and Culture

As we become a more global society, and teachers serve an increasingly diverse population, we encourage them to look at their own cultural beliefs, norms, and mores to consider how their own belief system might impact their practice. Additionally, having greater knowledge of broad, cultural patterns can be helpful. For example, Western cultures value individualism while Eastern, Latinx, and Native American cultures tend to value collectivism. Increased awareness of one's own culture, as well as the diversity of cultures that co-exist in our classrooms, can result in Culturally Responsive Teaching. Indeed, Villegas & Lucas (2002) stress that building relationships with diverse students can result in a commitment to systemic change. With this relationship building and critical self-awareness, teachers are positioned to establish the ethos in which diversity is a valued aspect among communities of learners and disability is simply one additional constituent to that diversity.

Conclusion

In the U.S., inclusion continues to be largely defined by placement statistics. Moving the needle from a focus on placement to an ethos of inclusion requires teachers to believe in the value of diverse classrooms and communities of learners. Teachers' culturally responsive practices, critical self-reflection on their beliefs and

assumptions, and effective application of universal design for learning are key elements to moving this needle of inclusion.

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AVOIDING THE SECURITY PITFALLS OF SYNCHRONOUS SESSIONS AND WEBINARS

Susie Gronseth
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Background

The Internet and multimedia have opened the door to online professional development experiences. Innovative practices are emerging internationally, and educators in all areas, including special education and disability support, need to be able to connect with colleagues around the world to be progressive and cutting-edge in their fields. Telephone apps like WhatsApp can provide verbal and now video connection from person to person, but if leveraging audio and video support in a group process is needed, use of synchronous webinars can offer an engaging, interactive, and multisensory interface for professional development activities. However, research on readiness of K-12 educators to use synchronous videoconferencing finds teachers are not prepared with the skills to "project presence, develop relationships, foster interaction, manage the course and teach content across a distance" and recommends professional development through teacher action research, communities of inquiry and development of standards specific to videoconferencing; however, specific conferencing security skill development is not mentioned (Rehn, Maor, & McConney, 2018). Knowing how to ensure the security of synchronous webinars is a professional necessity, so that educators can connect with and share knowledge and experiences online with colleagues with confidence and without fear of intrusion or interference.

Synopsis of Our Scenario Experience

The authors experienced a security breach firsthand as moderators of a live session that was part of a multi-organization, international professional development initiative relating to accessibility and inclusive education. The breach began with intruders entering the session and posting off-topic messages in the chat. Then, there were derogatory comments voiced over the presentation and inappropriate video footage screen shared. The session moderator removed microphone and screen sharing rights from the suspected culprits and then removed them from the session entirely. However, they were continually able to rejoin and wreak havoc in the session under varied usernames. Ultimately, the moderator locked down the session, which prevented any users to join, and permanently removed the intruders. It was apparent that greater knowledge of and attention to online security for synchronous webinars is necessary for today's educators.

Safety Features

It is important for session moderators to update their synchronous session software regularly. In October 2018, for example, Zoom identified a security vulnerability that would enable intruders to control features of a session, similar to what was described in the scenario synopsis (Zoom, 2018). The company addressed this by developing a patch and distributing it to clients as an update. Security features offered in presently available synchronous session platforms can vary across clients and account types. Zoom, for example, offers four account plans, ranging from individual basic (a free account) to large enterprise (premium fee); however, features, including security, tend to be more limited in the free or basic accounts. Zoom offers a "webinar" format that provides an integrated registration system and enables users to limit session controls to "panelists" only and broadcast a meeting to view-only attendees (Zoom, 2017); however, it is presently only available as an add-on for Zoom premium account plans.

Guidelines for Safer Practices

Digital security means implementing protections that can prevent outside influences from causing harm in online and interactive educational activities (Ribble, 2015). The following guidelines from the business sector offer insight for general and special educators in addressing video conferencing security (Taylor, 2017):

1. *Prioritize network security.* Existing security features or firewalls may not work with video conferencing apps and may require a specific Session Border Controller (SBC) to manage traffic and look out for/ block suspicious connections.
2. *Encryption is important.* Encryption is necessary to secure communications content by using a digital code to scramble the information.
3. *Protect yourself with permissions*. Security problems can arise when the wrong people are inadvertently given access to communications they should not see. This can happen by using open virtual meeting spaces or having overly permissive attendee settings.
4. *Create a safe use policy.* Policy development and training are critical to achieving security so that users are equipped to implement available security features.

Dr. Renee Hobbs, a widely recognized expert in digital literacy, offers practical recommendations for holding more secure webinars (R. Hobbs, personal communication, August 7, 2018). First, session organizers should refrain from posting webinar links directly on Twitter, Facebook, or other publicly accessible social media. Event pre-registration, through the session platform, Google Form, or similar tools, can collect attendee email addresses and distribute session access information. For sessions where attendees could have access to mic, webcam, and other sharing functions, introductions in the opening minutes (and acknowledgements of latecomers) are advised. Finally, session moderators should be prepared to mute, eject, or block intruders when needed.

Conclusion

Once aware of the threats that exist to the security of synchronous webinars, educators must take responsibility to address these issues through informed decisions and implemented practices. Implementing safe practices as part of synchronous session planning and implementation can help to mitigate potential unwanted intrusions. However, ubiquitous integration of security controls for all levels of accounts, not just for premium users, can enable all users to prevent and handle security issues in their sessions.

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TAPPING INTO POWERFUL TOOLS FOR TEACHING AND LEARNING IN SPECIAL EDUCATION

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Background

Massive Open Online Courses, or *MOOCs*, typically involve large enrollments (median of 8,000 participants per course in 2016) from around the world and provide free access to online instruction on a wide range of subjects (Chuang & Ho, 2016). There are variations of MOOCs, with *xMOOCs* (standing for *eXtended Massive Open Online Courses*) as a type of MOOC that is derived from traditional university courses. There are over 9,000 xMOOCs presently available from over 800 universities across the globe, and these courses have enrolled to date over 81 million students (Shah, 2018). In the United States, about 14% of higher education institutions offer MOOCs (Allen, Seaman, Poulin, & Strout, 2016).

The University of Houston in Houston, Texas, is one such higher education institution that has produced MOOCs that have been completed by thousands of students locally and globally. The courses have been developed on the Coursera online learning platform. Many are offered in an *on-demand* structure that provides learners greater flexibility in being able to begin working through a course when they so choose. The platform supports access through mobile devices and engages students in course content through varied means of information presentation, practice, discussion, and assessments.

Powerful Tools for Teaching and Learning

Two of the MOOCs developed by the Learning, Design, and Technology (LDT) program area in the College of Education at the University of Houston are designed for teachers and teacher educators and are referred to as the *Powerful Tools for Teaching and Learning* professional development series. The first course of this series focuses on the components of *Digital Storytelling* and how teachers can use the digital storytelling process as a student learning activity to construct videos that utilize the power of the learner's voice and purposeful integration of multimedia elements (Robin, 2008). The second course presents an array of *Web 2.0 Tools* that can support communication, collaboration, and creativity in the classroom. Each course is five weeks long, with about 3-4 hours of work expected for each week. The courses have garnered high student satisfaction ratings (about 4.5 out of 5 stars for each MOOC).

The courses were developed through collaborative design teams composed of faculty and doctoral students in the LDT program area. The design process followed the *Webscape* theoretical design framework for the development of multimedia-rich online learning environments (McNeil & Robin, 2011). In this process, the design teams co-created the scope and sequence of the courses and then utilized a variety of multimedia authoring programs to produce the instructional materials. The activities in the courses were framed around real world, authentic problems and tasks that would provide learners with opportunities to apply the course content in practical, meaningful ways. The design approach was constructivist, complex, and iterative, involving rapid prototyping (see Tripp & Bichelmeyer, 1990) of ideas so that they could be formatively evaluated, revised, and improved.

Applications for Special Education Teaching

For special education teachers, the *Powerful Tools for Teaching and Learning* MOOCs offer professional development on how to expand applications of instructional technologies in their classrooms. As the MOOCs are a cost- and resource-effective means to educator professional learning (Jobe, Östlund, & Svensson, 2014), they can be freely accessed through the Internet and provide just-in-time learning on tools and topics that are needed for educator growth. For educators who work with students with special needs, incorporating digital storytelling and web-based tools into instructional practice can support the provision of multiple means of engagement, representation, and action and expression for diverse learners (Meyer, Rose, & Gordon, 2013).

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INCLUSIVE PRACTICES AND EQUITY: CHALLENGES IN MAINSTREAM CLASSROOMS IN GUYANA

Sherwin Fraser

Conceptual Framework and Background

A major challenge facing special and general education teachers in Guyana is the lack of equitable inclusion policies. The Dakar and Salamanca Frameworks necessitated renewed energy and commitment in the fulfilment of equal opportunities for individuals with disabilities. This paper examines challenges of inclusive practices and equity in Guyana particularly in mainstream classrooms.

In recent times, there has been increase debates on including students with disabilities in inclusive classrooms. Research conducted by Jackson, Ryndak and Wehmeyer (2008) has shown that educating students using an inclusive education approach must be supported by appropriate educational services. Gilhool (1989) defines inclusion as the collective approach of students with disabilities learning alongside their peers in general education classrooms. The least restrictive environment mandate in the Individual with Disabilities Education Act (2004) states that students with disabilities should be educated in inclusive classrooms unless the severity of their disability makes it difficult to be addressed in the general classroom even with additional support services. In Guyana, there is much contrast to this situation since there has been regressive trends in educational placements and equitable access to effective schooling particularly for students with disabilities.

The Education System in Guyana

In Guyana, the Ministry of Education is the sole regulatory agency for the provision of education for all children in mainstream schools and special schools. The formal education system comprises institutions of various levels and types (Ministry of Education, 2008-2013). The levels and types of institutions include: pre-school, primary, secondary and post-secondary levels (Ministry of Education, 2008-2013). Education is also provided through technical and vocational institutions, teacher training college and university (Ministry of Education, 2008-2013). There is also continuing education which is provided through the Adult Education Association (AEA) and the Institute of Distance and Continuing Education (IDCE), an arm of the main university, the university of Guyana (Ministry of Education, 2008-2013. However, special education is delivered through special schools which are separate from mainstream schools and are located in the three major towns: Georgetown, New Amsterdam and Linden. More recently, there are a number of privately owned special schools mainly in the Capital City of Georgetown, providing support to students with Autism and Intellectual Disabilities. The schools in Georgetown cater to students who have sensory and visual impairments, while those in the rural towns cater to students with physical disabilities (Ministry of Education, 2010-2011).

Guyana is a low income, developing country and the only English speaking country in South America. National expenditure on education highlights the growing importance of this sector to the country. This view is supported by statistics, which show that 32.3 billion Guyana dollars from a 2014 national budget of 220 billion Guyana dollars was allocated to the education sector (Narine, 2014). However, there were significant increases by 2016 where the sum allocated was 40.3 billion dollars (Haniff, 2016). This reflects a 17.5 percent of the 2016 national budget when compared to 16.6 percent of the previous year (Haniff, 2016). In 2017, the sum allocated was 43.1 billion dollars, which reflected a 17.2 percent of the 2017 National Budget (Haniff, 2016). Statistics indicate that the capital, with 28% of the population, has 92% of the places in special education and there are unequal distribution of resources (Ministry of Education, 2010-2011). However, there is 85% enrollment of students at the nursery level, which is consider as one of the best in the developing world. (Mohabir, 2015a). Further, the figures indicate that 90% of special education students at the primary level gain access to secondary schools (Mohabir, 2015a). Seemingly, these strides in the education system have resulted in an attempt to achieve universal primary education and the fulfillment of a critical aspect of the United Nations Millennium Development Goals established in 2000 (Mohabir, 2015b).

However, despite the huge spending in the education sector, there are still many issues and challenges for special education teachers in educating children with disabilities. Some of the issues are discussed next.

Lack of resources both human and physical. There is a limited number of specialist teachers in the area of special education. In many special schools, there are general education teachers delivering the curriculum to students with disabilities. There is also a shortage of education and medical personnel to conduct appropriate diagnosis for children with disabilities. Medical diagnosis is often difficult due in part to the lack or general absence of specialists in this field. Negative parental attitudes towards the education of children with disabilities also pose a challenge. Even though, some parents are integrally involved in the education of their children, there are still many who prefer to keep their children at home due in part to the negative attitudes and perceptions of the society towards people with disabilities. There is a lack of effective pedagogical methods as well as information technology resources and this hinders the effective performance of teachers in the classroom. Large teacher/student ratios in many schools is a hindrance to inclusive practices. In many instances there are large class sizes which do not auger well for teaching and learning both in special and mainstream schools. The curriculum is inflexible and provides little scope for change. This is compounded by rigid homework and examination system which provides limited opportunities for skill and capacity building on the part of students.

Teacher support for inclusion of children with disabilities primarily in the context of mainstream education in Guyana remains a huge challenge for the Education Ministry. Muwana and Ostrosky (2014) posit that inclusion is affected by several factors, and one of the most important factors is teacher support for children with disabilities. Greater currency is given to this issue from research conducted by Forlin (2013) and Nonis and Jernice (2011). Forlin (2013) and Nonis as well as Jernice (2011) confirm that successful and effective

inclusion requires the following: qualified personnel, funding, availability of resources within schools, and national and state policies that promotes strong leadership. Essentially, while these issues are pivotal to the inclusion process in Guyana, they remain unattainable. Similarly, in many Caribbean Community (CARICOM) states, teachers' support for inclusion remains a challenge. For instance, in a qualitative study on Bahamian teachers' perceptions of inclusion as a foundational platform for adult education programs, Newton, Hunter-Johnson, Gardiner-Farquharson and Cambridge (2014) outlined five factors that influenced teachers' perception of inclusive education. These factors include: lack of training, insufficient resources, administrative support, teachers' attitudes and inadequate /misconception of information regarding inclusive education (Newton, Hinter-Johnson, Gardiner-Farquharson, & Cambridge, 2014). The study also revealed that teachers' displayed negative attitudes towards the implementation of inclusive education within primary schools, and highlighted the lack of administrative support for inclusive education from administrators at the school and district level (Newton, Hunter-Johnson, Gardiner-Farquharson, & Cambridge, 2014). Further, teachers believe that inclusive education is difficult to achieve due in part to numerous deficiencies in the public education system in the Bahamas (Hunter-Johnson, Newton, & Cambridge, 2014). However, willingness to support all children in the mainstream classroom, including children with special needs, depends on consistent administrative support for inclusive education (Newton, Hunter-Johnson, Gardiner Farquharson, & Cambridge, 2014).

In Guyana, teachers face an uphill task in mainstream classrooms in garnering support and building relationships with parents. The lack of support has stymied the effective teaching of children with disabilities. For example, many of the problems faced by teachers relate to an attitude of resistance of citizens towards children with disabilities. Fraser (2014) notes that this attitude of resistance, which pervades the Guyanese society, often reflects exclusive tendencies resulting in marginalization and exclusion.

Recommendations

While there are ongoing efforts to improve access to appropriate education for all students, the following recommendations if properly implemented will result in significant benefits for teachers in both mainstream and special schools in Guyana.

- *Teacher Training*. Special education programs including programs on disabilities for students at the Cyril Potter College of Education (CPCE) and the University of Guyana (UG) as major specializations should be implemented.
- *School Resources*. There must be provision of greater resources for special schools and more child – friendly spaces or children with disabilities. Policy makers should urgently address the need for speech programs and related resources since this will significantly reduce the high costs of speech programs. Resources are also needed for all other specialized areas to assist children with disabilities. The acquisition of greater assistive devices and technology is essential for all classrooms and this would provide a tremendous boost in the execution of educational programs
- *Transition to Post-Secondary Education.* Clear pathways must be developed for students with disabilities in order for a smooth transition to adulthood. These pathways must consider salient issues such as self-sufficiency and elf-determination.
- *Improving Equitable Access to Education.* Significant work is needed in order to improve the quality of education in inclusive classrooms. For this purpose, achieving full inclusion may require strong commitments by all agencies and organizations involved in the quest for equitable access to education for children, particularly those with disabilities and other groups who are at risk of marginalization and exclusion. In large measure, more involvement of special education teachers in decision-making is important in the realization of inclusive education, and the teaching of children with disabilities. However, one major concern relates to the fact that while a substantial amount of fiscal resources are allocated to education, the country still face challenges in educating children with learning disabilities. In addition, the support for inclusion particularly in the context of mainstream education also remains a challenge for teachers, parents and even policy makers.

Suggestions for Future Research

Future research is needed on the issue of equity and social justice for students with disabilities in Guyana. In addition, research should be extended on inclusive practices and teachers perceptions of teaching students with disabilities in mainstream classrooms.

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APPLICATION OF UDL PRINCIPLES TO PROMOTE ACCESS TO EDUCATION FOR ALL STUDENTS

David Evans
Elga Andriana

More than 180 countries have ratified the Convention on the Right of Persons with Disabilities (United Nations, 2006), making the intent of this convention legally binding. Article 24 of the Convention upholds the right of all children and adolescents to an education. Education for all is key to meeting the Sustainability Goals (United Nations, 2015), with the right of children and adolescents to receive a free and quality education central to meeting each of the seventeen goals.

Article 24 of the Convention highlights the right of all people with disabilities to a free primary education, and on the same basis as their non-disabled peers. Central to upholding this right is ensuring the teaching workforce is provided with professional learning in the aims of a rights-based approach to disability and inclusive education (United Nations, 2014).

As countries work towards meeting their obligations under the Convention, the strategies used in upholding the intent of Article 24 are many and varied. This represents and celebrates the rich differences between and within countries. In spite of these efforts, and professional investment by teachers, students, parents, and governments, there is evidence that "profound challenges persist" (United Nations, 2016, p. 2). Many students with disabilities continue to be excluded from their right to an education, and/or are educated in settings and contexts away from non-disabled peers.

Indonesia ratified the Convention in 2011. There have been numerous efforts to uphold the right of children and adolescents with disability since then, including the passing of differing legislation and establishment of inclusive schools. Despite these developments, it is estimated that 70% of students with disabilities do not access their right to an education (Widagdo, 2016). This paper examines the efforts of a group of teachers in four schools in GunugKidul and Yogyakarta Province in Indonesia to develop inclusive education to cater to the full range of student' needs.

Method

This exploratory study involved nine teachers from three schools designated as inclusive schools. The teachers during this project were teaching students years 2 to 5. The schools were located in a rural part of the province, and consisted of basic resources provided by the education authorities.

The teachers in the study schools expressed caution and apprehension about the goals of inclusive education. During the study teachers were unsure about the benefits of students with disabilities receiving an education, as well as their belief that they did not have the professional knowledge and skills to cater to all students in their classroom.

The study focused on enhancing teachers' professional knowledge about inclusive education. This was achieved through providing professional learning in the universal design for learning (UDL) framework (Meyer, Rose, & Gordon, 2014). Nelson (2014) defined UDL as "a framework that guides the shift from designing learning environments and lessons with potential barriers to designing barrier-free, instructionally rich learning environments and lessons that provide access to all students." (p. 2).

Teachers knowledgeable about the UDL framework from a school in Yogyakarta provided professional support to project teachers. Using a cyclic professional learning strategy, the supporting teachers provided professional sessions to the project teachers in the principles of inclusive education, and the three principles of the UDL framework (i.e., multiple means of engagement, multiple means of representation, multiple means of action and expression). Each session was two days in duration, during which time teachers personalized their focus on strategies that would assist them address the needs of all students in their classrooms. Teachers

also had the chance to visit the classrooms in school of the supporting teachers, and examine first-hand the implementation of the UDL framework.

Research assistants from GadjahMada University undertook data collection for the study. Primary data collection included classroom observations after each workshop to examine how teachers applied their learning, interviews with children in each of the project teachers' classrooms, field notes from an end of project discussion about inclusive education and the use of the UDL framework, and general measure of self-efficacy.

Results

Using the Most Significant Change technique (Serrat, 2017) to examine teacher interview data, there was a general acknowledgement from each of the teachers that their perceptions of inclusive education had changed as a result of the professional learning project. Regarding understanding the principles of inclusive education and working with the principles of the UDL framework, teachers focused on the strengths of the students. Students were seen as people, and teachers did not fall into a common habit of considering students with disabilities as 'inclusion students', and different to 'regular' students.

A key concern that teachers voiced was about the resources they would need to design learning activities for all students. This challenge was met through initially having teachers establishing a greater understanding of their students (e.g., motivation, interests) as part of the principle of engagement. Teachers talked with their students and became familiar with their interests outside of the classroom. Through this understanding teachers were encouraged to think about how they could design learning activities that utilised the resources within the school and community, and linking this with student' interests. Teachers were observed taking lessons outside to use naturally occurring materials as part of mathematics; they commenced lessons through the use of music and singing and provided arts-based learning activities to investigate literature. While building students interests and motivations, it allowed teachers to address multiple means of representation, and action and expression.

Students' interviews revealed that learning activities in the classroom changed. Learning from a textbook became only one part of a number of learning activities designed by the class teacher. One student outlined how their teacher used mobile phone conversations as part of a Bahasa lesson. Using a device that many students found motivating, resulted in students having 'fun' and being 'excited' about learning Bahasa.

Students found the use of group work more beneficial than the typical desk work. Students described how having a friend 'explain' a problem to them helped them to understand what was required better. These contexts provided opportunities for students to use and practice the use of language. The use of group was not preferred by all students, and teachers discussed the idea that maybe not all students had to work in groups all the time.

Overall, teachers reported greater self-efficacy and belief in their professional knowledge about inclusive education. Teachers attributed this enhanced self-efficacy to the nature of professional learning context. The sustained period of interaction with peers skilled and knowledgeable in the use of the UDL framework, and principles of inclusive education, allowed them to firm their ideas. Study teachers further reported that visiting the classrooms of their peers was very reassuring, that is, they were better prepared to go back to their classroom having observed first hand examples in action within a classroom. Teachers expressed a desire to have ongoing practice in designing lessons utilising the UDL framework, and being able to discuss and explore differing ideas. This need became very important for teachers in this study, and the flexible design of the study allowed this to happen to some extent in the final workshop.

Discussion

This exploratory study examined the impact of support provided to nine teachers to enhance their knowledge of inclusive education. They did this through engaging in a sustained series of cumulative workshops that introduced and enacted the UDL framework. Teachers and students reported positive benefits of this work in terms of the nature and quality of the learning activities within classrooms.

This study was small in scale. Conducted over nine months, the professional learning workshops only touched the surface of the UDL framework. A longer period of professional learning with focused and purposeful engagement, would allow teachers to further explore the three UDL principles. This study showed, however, that a low-cost project that utilized the good will of fellow professionals provided benefits to all involved. The visiting teachers learned more about their understating of inclusive education through working with the GunugKidul teachers; the GunugKidul teachers expanded their idea of teaching and student learning, while students found the changes motivating and 'exciting'. While challenges of inclusive education still exist in this context, it shows how teachers working together with each other, their students and community resources (e.g., university personnel) can uphold the intent of the Convention, and importance of inclusive education to all.

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USING PEER MEDIATED LEGO PLAY TO PROMOTE SOCIAL COMMUNICATION IN YOUNG STUDENTS WITH AUTISM

Cathy Little
David Evans

One of the most prominent characteristics of people living with an Autism Spectrum Disorder (ASD) is difficulty in social communications, such as initiating or responding during a conversation, turn taking, as well as sustaining interactions with others appropriately in social situations. Effective social communication relies on the understanding that people know different things and that these states of knowledge can be shared. Difficulties that arise from difficulties with social communication in the educational setting can affect a student's ability to interact in the classroom and impact their ability to establish and maintain friendships over time (Locke, Kasari, Rotheram-Fuller, Kretzmann, & Jacobs, 2013).

If it is expected that students with ASD demonstrate appropriate social communication behaviors in specific social situations, then explicit teaching of such skills is required. Peer-mediated intervention (PMI) is one evidence-based practice used to increase social interactions between children with ASD and their peers; it improves the collaborative social communicative behaviors of students with ASD (Watkins et al., 2015). PMI encourages the development of age-appropriate social interactions for children with ASD, whereby typically developing students are taught to engage peers with ASD in social interactions through the use of specific social strategies and directive information messages such as offers to share, offers of assistance, and demonstrations of affection and invitations to play (Katz & Girolametto, 2013; Ezzamel & Bond, 2017).

The current study examined the effects of a peer-mediated LEGO® play (PMLP) intervention on improving social communication skills for two young students with ASD (i.e., one in Kindergarten (CS-K), one in Year 2 (CS-2)). PMLP intervention (e.g., Hu Zheng & Lee, 2018) allows for collaborative play and peer-mediated sessions to be structured with consistency, utilises visual representations to support students with ASD to process information, and utilises materials that are typically motivational for students with a range of interests (Hampshire & Hourcade, 2014; LeGoff, 2004).

Method

A case study design was used to examine the impact of the PMLP intervention on three social communication skills; the dependent measures included turn-taking, social initiations, and social responses. Three peer-mediators nominated by the teacher of each student with ASD undertook training as a peer-mediator.

Five undergraduate research students implemented the PMLP intervention on the intervention developed by Hu et al. (2018). Each session required the student with ASD and two of the peer-mediators to construct three LEGO® models. Each member of the team took turns to carry out a role within the group when constructing one of the models (i.e., builder, engineer, and supplier).

Each session was facilitated by two research students. While one research student guided the structure of the PMLP session (e.g., re-directed students to the task, reminded them of the session rules), the other video-recorded the session. At the end of each session, the recordings were up-loaded onto a web-based video analysis system (*Education Video with Collaborative Annotation, Analysis, and Assessment* [EVA]; Wong & Reimann, 2009).The researchers analysed the videos using EVA to establish the number of times each of the dependent measures occurred in a twenty-minute session. In addition to the video analysis data, interviews were conducted with peer-mediators, parents of the students with ASD, and their classroom teachers.

Results

The analysis of video data showed differing changes in social communication skills by each student- across the three dependent variables. The PMLP intervention resulted in noticeable changes in mean number of social responses and turn- taking between intervention and base-line conditions for both students. These changes in behavior for social initiations was not as noticeable across interventions, with the Kindergarten student

demonstrating less change than the Year 2 student. These results across five weeks of intervention are supportive of previous research (e.g., Hu et al., 2018).

Results from the interviews indicated agreement with CS-K's development in non-verbal communicative behaviours and social-emotional reciprocity. Both the parent and the teacher reported improvements in CS-K's appropriate verbal and behavioral responses to social and emotional situations; he became more inclusive of others and began to construct his own judgements and understanding of peers. Parent observations reported CS-K conversing with different peers at a birthday party and initiating play in the school playground. Improvements and promising results in the knowledge and perceptions of peers towards students with disabilities were also found across both case studies.

Discussion

Results from this school-based naturalistic study examined the impact of PMLP intervention on social communication skills showed that social responses were more sensitive to the peer-mediated intervention than social initiations (Hu et al., 2018). The function of the LEGO® materials in motivating students was evident throughout with the roles of the engineer, supplier, and builder important to providing opportunities for students to engage with each of the target behaviours (LeGoff, 2004).

The Year 2 student showed greater gains than the Kindergarten student. Class teachers noted that the Year 2 student had progressed from where his Kindergarten peer had been through ongoing support over the years. The Kindergarten student demonstrated ongoing competency in his non-verbal communicative behaviours within different social contexts showed development in the recognition of social-emotional reciprocity, and began strengthening his relationships with peers.

The parent and teacher participants observed positive changes in the social communication skills over the term, but found it difficult to pinpoint such impacts to the five-week long intervention. Teachers were concerned about the intensity of the interventions (i.e., about 4 times per week for 20 sessions); this frequency of intervention was different to the study by Hu et al. (2018) who conducted sessions twice per week, over 30 sessions.

In conclusion, the use of the PMLP intervention to facilitate social interactions between students with ASD and their same aged peers showcased the efficacy of PMI as a sustainable - inclusive educational practice.

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UNIVERSAL DESIGN FOR LEARNING IN INCLUSIVE EDUCATION POLICY

Judith McKenzie
Elizabeth M. Dalton

Background

In 2011 the authors of this paper, Elizabeth Dalton and Judith McKenzie, jointly presented a workshop on the use of Universal Design for Learning (UDL) at the University of Cape Town to a diverse audience of therapists, teachers, and education managers. We subsequently wrote up our experience of this workshop in a publication entitled: *The implementation of inclusive education in South Africa: Reflections arising from a workshop for teachers and therapists to introduce Universal Design for Learning* in the African Journal on Disability (Dalton, McKenzie and Kahonde, 2012). Given that this was a small reflective piece bringing together the conceptual underpinnings of South African education policy and the principles of UDL as reflected in the workshop evaluations, we did not anticipate that it would be as widely read and cited as it has been. In this current paper we explore why this combination of UDL and inclusive education policy in South Africa has struck a chord with teachers and researchers and speculate as to how this synchrony can be further developed.

Background

South Africa has adopted an inclusive education policy outlined in Education White Paper 6 (EWP6) (2001) which is based upon two central pillars: a) identification, assessment and support of learners and b) catering to learner diversity through curriculum differentiation. Through these strategies it is envisaged that barriers to learning can be addressed in inclusive environments. One curriculum design approach that addresses the issues of importance for successful inclusion of students with differing needs in general education is Universal Design for Learning (UDL). UDL was conceptualized in the early 1990's by the educators and researchers of the Center for Applied Special Technology, now known CAST, in response to gaps that they recognized between the needs of their students and their instructional environments. CAST extended the existing conceptual framework of Universal Design (UD), where physical environments were designed for the widest range of differing access needs, and applied this approach to educational environments (Center for Universal

Design, 2008). Based on neuroscientific research on how the brain works, the three core principles of UDL address learner variation through the proactive curriculum design, and are specifically: 1) Multiple means of representation, 2) Multiple means of action & expression, and 3) Multiple means of engagement (Meyer, Rose & Gordon, 2014). Since its inception in the United States, UDL has become recognized nationally and internationally as an important conceptual strategy and framework for the effective achievement of inclusive education (Davies, et al, 2013).

Linkages Between UDL and Education Policy

The conceptual framework of UDL has important linkages with educational policy in South Africa to better plan and implement inclusive educational environments.

1. UDL provides a clear, understandable framework that facilitates communication between the multiple team members. In this manner, teachers and therapists and educational planners can find a common language to support learners who experience barriers to learning. In terms of South African policy this can facilitate the development of individual support plans as outlined in the policy on Screening, Identification, Assessment and Support (SIAS) (DBE, 2014). The multi-disciplinary team, including the parents can use the UDL framework to develop a common understanding of instructional supports that are needed for the child to succeed. The three core principles of UDL guide educators to adapt their instruction in any different ways through the use of varied materials and approaches. UDL fosters professional collaboration and communication to achieve inclusive learning:

   > Whereas teachers speak the language of the curriculum, therapists are more steeped in medical or psychological terms. By paring down teaching and learning to the three processes of flexible methods of presentation, expression and engagement, all those working with the learner can collaborate with a common understanding. (Dalton et al, 2012 p. 6)

2. In South Africa large class sizes (up to 85 children per class in some rare cases) are likely to remain a reality for some time to come and teachers should therefore, be trained in how to deal with this situation (Marais, 2016). One strategy is to build diversity into learning and teaching at the planning stage, as specific adaptations for different learner needs are very taxing under these conditions. UDL starts from the planning stage and aims to prepare for the widest range of diversity amongst learners.The busy teacher can be prepared to deal with levels of diversity that are proposed within EWP 6 through proactive instructional design.
3. EWP 6 places the teacher at the centre of the implementation of inclusive education and highlights the importance of ongoing professional development. In the UDL workshop noted above (Dalton et al, 2012), participants made a strong plea for further training in UDL. The system set up by the South African Council for Educators for mandatory professional development could include endorsement of well-designed and delivered short courses on UDL.
4. UDL can be high tech or low tech, or even no tech. This is reassuring for a South African population in which both more affluent and less affluent communities require quality education. With careful thought and planning both well-resourced and less-well-resourced systems can cater for diversity through creative use of existing resources with a view to increasing equity and access.

UDL can only be implemented through systemic change, and the possibility that it might be the driver of such change is an exciting one. However, this will require policy and planning support from educational administrators who will enable training and will recognize and support best UDL practice.

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LOW-TO-HIGH TECH INTERVENTIONS TO INCLUDE AND EMPOWER PEOPLE WITH DISABILITIES

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Background

Technology is the use of different types of tools to carry out different functions, and is infused throughout our lives - from simple, low-tech tools like pencils to high-tech devices like cell phones and computers. As development and use of technology continues to expand, our classrooms are no exception. Growth of digital technology makes possible new options for connection and accessibility, but the key to achieving successful access is to have the *right match* between needs, environment, and tools. A framework that guides effective matching is the SETT Framework (Zabala, 2019). SETT, which stands for *Student, Environment, Task,* and *Tool*, supports *"all phases of assistive technology service design and delivery from consideration through implementation and evaluation of effectiveness"* (Zabala, 2019, p. 1).

Empowering Persons with Disabilities through Low-Tech Solutions

According to U.S. PL 105-394 the Assistive Technology Act of 1998, an assistive technology device is *"…any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities"* (p. 5). While the nature of the disability will influence the type of technology used, other factors do exist including money, time, availability, and awareness of the technologies by educators and family members. Often low-tech options are more readily available. One factor to consider when choosing a low-tech option is how will the skills learned generalize to high tech options in the future? For example, a student who has difficulty with writing and limited resources may use an old-fashioned typewriter to write. This is a good choice because the typing skills and knowledge of the keyboard layout will generalize to a computer or tablet in the future. On the other hand, simple axillary crutches may not develop skills or competencies that generalize to a front drive wheelchair but may build upper body strength useful with a manual wheelchair. When resources are limited and barriers high, seek low-tech options, but search for ones where skills can transfer to high tech options in the future.

MOOC Training and Assistive Technology in South Africa

South Africa has one of the largest socio-economic disparities in the world (DoSD, 2015). This manifests in skewed access to resources such as healthcare, education, housing and jobs as the impact of fewer resources is endless. With inclusion having taken root in South Africa (DoE, 2001), implementation results are mixed.

One response to the inclusive education challenge is the high technology approach of Massive Online Open Courses (MOOCs) for teacher education. One example is *Education for All: Disability, Diversity and Inclusion,* an online course developed by the University of Cape Town https://www.futurelearn.com/courses/education-for-all. This free online course provides basic introduction to inclusive education. Developers worked to ensure full accessibility to participants with disabilities while they acquire skills on par with non-disabled peers. The course is also educative for disability advocates who promote inclusive education in their communities. Curriculum includes the concept of inclusive education, local and national policies, and contextually relevant strategies for inclusion in education. The 6-week course has focused activities and accessible open source resources for further exploration according to personal needs, interests and time. Online learning is not a substitute for face to face courses, but rather as a qualitatively different learning experience (Garrison & Kanuka 2004). Asynchronicity allows learning to take place on the participants' own time for face-to-face teaching. Travel costs and mobility issues are reduced, and materials can be presented in multiple ways (video with or without subtitles, transcript or podcast). With expert learning design and facilitation, interaction between disabled and non-disabled participants contributes to better understanding of disability issues and building of communities of practice.

Assistive technology resources in South African post-secondary education can vary greatly. Limited schools have accessible technologies, such as JAWS and ZOOMText, enabling access reading materials for those with visual impairments. Some students have devices with Braille displays. However, in environments where these higher tech supports are not available, and depending on the person's specific needs, simple printing of reading material with an enlarged font or sometimes using larger paper would suffice. Where electronic materials are available, use of screen reading programs such as JAWS or ReadWrite Gold is appropriate. In low-tech environments using different color page backgrounds with bold print could assist students with reading difficulties. Schools for Deaf and hearing-impaired students may have Sign Language interpreters, hearing aids or cochlear implants, but in the ordinary schools, such high and low tech assistive technologies are uncommon. Students can access hearing devices through state services, but Induction Loop Systems (www.ampetronic.co.za) can be purchased where this is affordable to institutions in a high tech environment, as this can enhance hearing even more and through the use of the hearing aids that students would have grown accustomed to. Students may qualify for assistive technologies through bursaries. Universities may access private corporate funding to support high technology solutions. Where financial resources are limited, open source software such as NVDA for screen reading (www.nvaccess.org) is available. The potential of MOOCs and assistive technology to include students with disabilities as well as to support inclusion of learners with disabilities in schools and teacher training looks very promising and needs to be explored further.

Augmentation of Communication through Technology

For those individuals who are unable to, or have difficulty using their voice to communicate, technology offers a wide range of alternatives to verbal communication. This is important for the professional training of speech language pathologists. Pictures and graphic symbols allow communications of ideas and messages without using text. Commonly available symbol sets include Picture Communication Symbols (PCS) www.mayer-johnson.com , Widgit Symbols www.widgit.com, Symbolstixwww.n2y.com/symbolstix-prime/, and Blissymbolshttp://www.blissymbols.co.uk/ . Symbols can combine with text messages as well, to enhance communication. Alphanumeric symbols are the best match for communication, if the individual is literate. Many electronic communication devices can support both alphanumeric symbols and picture/graphic symbols, expanding their effective use.

Apps for mobile tablets and phones expand options for augmenting communication. Communication apps support communication needs in medical, educational, work, and community settings. Two FREE text-based apps that make communication quicker and easier are MyTalkToolsMobilehttp://www.mytalktools.com/dnn/2/Home.aspx and SayIt (available at Apple Apps Store). Two excellent apps for purchase, with many more features and capabilities, are Predictable, a text-based app and Proloquo2Go, a pictographic app, both available online at Apple Apps Store. Persons with communication challenges can successfully participate and succeed in educational and professional environments through the use of augmentative technologies (Beukelman & Mirenda, 2013).

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UDL AND INCLUSIVE INSTRUCTIONAL DESIGN AROUND THE WORLD

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Inclusive Foundations

Inclusive instructional design means designing instruction to be as *inclusive* as possible by addressing the naturally-occurring wide range of learning interests, needs and capabilities present in our classrooms. With inclusive instruction embraced around the world (UNESCO, 2009), teachers should build a design foundation to establish inclusive classrooms.

Universal Design for Learning (UDL) is a conceptual framework to help guide the design of accessible, inclusive, and engaging curricula through its three core principles: Multiple means of representation, multiple means of action and expression, and multiple means of engagement (CAST, 2018). UDL leverages existing laws, theories, and frameworks, providing a means to implement these to address the full range of learner variation in our classrooms.

Four learning theories that address learner diversity are *Multisensory Instruction* (Grace Fernald), *Multiple Intelligences* (Howard Gardner), *Taxonomy of Learning* (Benjamin Bloom), and *Conditions of Learning* (Robert Gagne). UDL can help implement each of these learning theories through its guidelines and checkpoints (Meyer, Rose & Gordon, 2013). Four inclusive frameworks for designing instruction are *Differentiated Instruction* (Carol Tomlinson), *Mastery Learning* (Benjamin Bloom), *TPACK* (P. Mishra & M. Koehler), and *SAMR* (Ruben Puentedura). UDL can support implementation of these frameworks, leading to instruction designed to embrace students' needs for what, how, and why they learn.

Inclusive Policies

After many years of oppression and apartheid, South African (SA) education needs to reflect changing policies to move towards transformation and a socially just nation. The SA Constitution outlawed discrimination based on disability, language, race, and gender, echoing the Salamanca Statement and Framework for Action on Special Needs Education that all people can learn and have the right to education (UNESCO, 1994). The UN Convention on the Rights of People with Disabilities (UN, 2006) was ratified by SA in 2007 and cemented the need for an inclusive society. With the introduction of inclusive education in the SA education system in 2001 (Dept. of Ed., 2001), the era of re-thinking separate special schools for learners with disabilities took root. The 2018 Strategic Disability Framework on the Post-School Education and Training System (DHET, 2018) marks an international trend toward universal design (UD) and UDL in faculty instruction, curricula and student support. Dalton, Mckenzie and Kahonde (2012) and Lyner-Cleophas (2016) cite preliminary workshops and seminars about UD and UDL, and more are needed to affect change in practice. Addressing the complexities of post-secondary learning is a necessary step towards building a society that is truly inclusive of individual differences and similarities.

Inclusive Strategies

Lessons challenging learners so they can grow may be more difficult for some. UDL addresses individual needs through intentional, flexible planning (CAST, 2018), eliminating barriers, maximizing access, and enabling learners to: (1) achieve the same learning objective as other learners or (2) complete a different learning objective. These two outcomes can be accomplished in same lesson, through careful strategic planning. Teacher carefully craft options for learners driven by learner data as opposed to providing a smorgasbord of confusing option. Key is *not* to compromise achievement of the learning objective, with learner and the learner's peers assessed against the same criteria for comparable achievement, if by varied means. Hence, all learners reach mastery. It is knowing how and when to provide appropriate options that differentiates the veteran UDL teacher from the learner.

Inclusive Technology

The UDL approach does not necessitate the use of technology to expand ways in which content is represented, students are engaged, and learning is expressed. UDL, rather, involves a mindset during curriculum design and teaching that the instruction will incorporate *the means* necessary to enable all learners to be successful. The means *could* involve technology, as it offers expanded possibilities for the ways in which learners can connect, collaborate, and communicate, as learners can express their ideas and projects using graphics, voice recordings, video and animation, text, and so on (Brand, Favazza, & Dalton, 2012). Further, applications of technology do provide benefits of independence, efficiency in incorporating differentiation in the classroom, and increased accessibility of learning materials (Gronseth, 2018).

Online learning exemplifies the benefits of UDL application in course design and delivery. Due to *transactional distance* (Moore, 1993), online education faces challenges not only with meeting diverse learner needs but also with digital communication and learner motivation and self-regulation. Because learners bring differing backgrounds to a program of study, applying UDL in online instruction can mean structuring the curriculum to enable students and instructors to make strategic decisions regarding learning goals and how to support them (Black, Weinberg, & Brodwin, 2015). For example, structuring online discussion through text, visuals, auditory, and video not only reduces learning barriers, but it can also offer options that accommodate the varied learning spaces. Digital variation of means is easily possible.

Conclusions

UDL is a powerful framework that can be a global paradigm shift in designing learning programmes that places diversity rather than conformity or the *norm* at its centre (Ostroff, 2011). Furthermore, UDL is starting to be widely applied across different global contexts (see for example Dalton et al., 2012; Al-Azawei et al, 2016) and is expected to increase with call of the sustainable development goals to "*leave no-one behind"*. The links of UDL to learning theories dealing with learner diversity can guide differentiation of instruction. Examples from South Africa makes a policy link where UDL can becomes a tool for social justice. Technology links offer new options for inclusive design, and UDL strategies that can be helpful to classroom teachers and education planners who are faced with an increasingly diverse learner population.

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STUDENTS WITH AUTISM AND INTELLECTUAL DISABILITIES: STATUS AFTER COLLEGE

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We have entered an era in which students with autism spectrum disorder (ASD) and intellectual disabilities (ID) are enrolling in college and university programs with goals similar to students without disabilities (Hart, Grigal, & Weir, 2010; Hendrickson, Vander Busard, Rodgers, & Scheidecker, 2013). An overarching mission of programs for students with a range of cognitive challenges is to transition into inclusive postsecondary learning environments that support their continued intellectual, emotional, and social development. This transition step in the preparation of young adults with disabilities is intended to lead to an improved quality of life during adulthood, including the procurement of sustained, meaningful employment.

At this stage in the expansion and refinement of postsecondary education (PSE) programs for students with cognitive challenges, there are limited empirical data to guide the design and differentiation of the college experience for students with disabilities. Hendrickson et al. (2013) describe supports that enhance the success of students with disabilities in college. Highlighted programmatic features include an on-going adviser-advisee relationship, mental and physical health counseling, family involvement, peer engagement strategies, and strategies for learning and memory. Pascarella and Terenzini (2005) cite evidence for a positive transition to college related to a national sample of undergraduates. These authors conclude that residence hall living-learning experiences, full-time enrollment, and collaborative learning are key aspects associated with student success.

The University of Iowa REACH (Realizing Educational and Career Hopes) PSE model combines research in the disability and higher education fields in creating a program to serve and support students with disabilities during their college experience and develop the soft skills that they will need in a variety of vocational areas post-graduation. UI REACH, a two-year, full-time certificate program for students with intellectual disabilities, provides full-time on campus residency, inclusion, and student support. (See Hendrickson, Therrien, Weeden, Pascarella, & Hosp, 2015, for program description and data indicating a positive college experience which is comparable to freshmen without disabilities.) In the current study, we were interested in the post-graduation status of students who completed UI REACH as such data are even more sparse than data on student adjustment to college.

Method and Results

A preliminary follow-up study was conducted for the first, second, and third graduating classes (i.e., class of 2010, 2011, and 2012) at UI REACH. Families were contacted by telephone six months after graduation to determine if their graduate was 1) Employed and/or in a Continuing Education program (e.g., community college, 4-year college, or 2) Not Employed. Results indicated that compared to the U.S. Bureau of Labor (2012) which determined that 17.8% of adults with disabilities were employed, 100% of UI REACH graduates were either employed or continuing their education. These results offer a broad, positive short-term picture of graduate status but are not sufficiently fine-grained to differentiate employment vs. continuing education, full- vs. part-time work, job satisfaction, or types of supports graduates received related to employment and quality of life.

A second, more comprehensive follow-up study was carried out to better understand graduate outcomes across time. Parents of graduates from 15 U.S. states responded to an online survey six months to 5 years post-graduation. Results indicate that over 75% of the graduates of responding families were employed. These employed graduates reported high job satisfaction. A significant percentage of graduates were living independently or semi-independently, and were involved in community affairs. A number of early-year

graduates had maintained the same job for an extended period of time. No graduates worked in sheltered workshops or lived in segregated settings.

Summary and Conclusion

Graduates of the UI REACH program significantly outperform the broad category of adults with disabilities who are gainfully employed in the U.S. workforce. Program graduates, although not trained for specific vocations, were hired to work in a range of jobs/fields. They revealed satisfaction in many dimensions of adult life. Family, community, and work-based supports were identified as central to graduate happiness and achievements. This information is significant because research shows that the degree to which an individual is happy with their job is positively correlated with quality of life indicators (e.g., overall health, sense of well-being) (Faragher, 2005).

PSE programs for students with ASD and ID often differ in specific goals as well as the nature of services and supports provided. Some PSE programs are primarily vocationally oriented; in some students are dually enrolled in high school and college generally, live at home, and commute to college; some programs are predominantly life skills focused; some serve local students, and others serve students from across the nation. Moreover, the length of PSE programs may range from 2- to 4-years. As with students without disabilities, an opportunity for choice is critical. Best outcomes are most likely when families and students understand the dimensions of and supports provided by their college of choice so that an educational experience that fits the needs, aspirations, and expectations of students and families can be selected. Colleges offering opportunities for students with ID must build upon their existing infrastructure, expand interdisciplinary partnerships, be prepared to collaborate dynamically with community agencies, businesses, and families, and incorporate strategies for continuous program improvement and accountability by measuring long-term outcomes.

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ADJUSTMENT IN MOTHERS OF CHILDREN WITH INTELLECTUAL DISABILITIES BASED ON THE DOUBLE ABCX MODEL

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Conceptual Framework and Background

Various methods and models have been presented to examine the effects of having children with disabilities on family members, especially mothers. Recent approaches emphasize the strengths of the family system and many influential factors. One of the models used to conceptualize the role of the various factors in explaining stress and family compatibility can be The Double ABCX Model (Han et al., 2018; Friesman et al., 2017). The components of The Double ABCX Model in family adjustment includes family reconciliation (xX) arising from the needs of the family related to children with disabilities (aA), the family adaptive or supportive resources (bB), and the family definition or perception of the stressful situation (Cc). In these processes, ABCX represents the former and primary causes of stressors or crises, and abcx represents changes made in the original or prior variables over time. Generally, when the final outcome is an adaptive response, parents and other family members may experience less and manageable stress and the crises is not considered to be very negative. But if the outcomes of the crises are maladaptive, with psychological difficulty, and pressure on the family, there is a crisis of additional and negative consequences, such as child abuse, absence from home, low commitment to parental duties, behavioral and emotional problems of other members, and divorce. Various studies have depicted the effect of each of these factors on the adjustment of parents of children with developmental disorders. Salvita et al. (2003) indicated that the most important predictor of stress and adjustment of parents of children with disabilities was the negative definition of the situation. In the present study, this hypothesis was tested that mothers' adjustment or stress depends on the relationship among several variables.

Method

To study the research hypothesis, Structural Equation Modeling was used by AMOS v24 and the estimation of parameters and path coefficients was used using the exponential maximum estimation method. A sample consisting of 260 individuals was selected and data was collected from them. The research instruments was Rutter's Behavior Scale (B2) for children, used to assess the stressors. To measure family supportive resources, three dimensions were used, including: 1) the Family Resource Scale (FRS): This scale was developed in Dunst and Leet (1990). This test is a 31-item questionnaire that measures the degree of material and immaterial family resources on a 5-point Likert scale. 2) Rosenberg's Self-Esteem Scale measures overall self-esteem and personal values. This scale consists of 10 general statements measuring the degree of life satisfaction and good feeling. 3) The Multidimensional Scale of Perceived Social Support is a 12-point instrument developed by Zimet, Dahlem, Zimet, and Farley (1988) to assess perceived social support from three sources of family, friends, and people in life. In order to evaluate component C, The Perceived Stress Scale (PSS) was used in the ABC X model. The PSS was developed by Cohen et al. (1994) containing 14 articles used to measure perceived public stress over the past month and express thoughts and feelings about stressful events, control, overcoming, coping with stress, and experienced stresses. To assess the adjustment, i.e., the final outcome of the DBX dual model, the Ryff's Psychological Well-being Scale was employed.

Ryff and Keyes (Khanjani et al., 2014) designed a scale for measuring and operating each dimension of the model as a self-reporting form, based on the conceptual definition of psychological well-being.

Findings

According to the reported results, there was a significant correlation between stressor with psychological wellbeing (r=-.64; p<.01). Also there was a significant correlation between perceived stress with psychological well-being (r=-.55; p <.01). The reported results also indicated that there was a positive and significant correlation between psychological well-being and dimensions of resources at P<.01 so that the correlation coefficient between variable components of resources with psychological well-being was between 0.60 and 0.64. On the other hand, correlation coefficients between coping styles and psychological well-being were equal to 0.67. This correlation coefficient was significant at P<0.01. Examining stressor correlation coefficients (Aa) with rational coping styles showed that the size of Pearson correlation coefficient between these two variables was equal to -0.634, which is significant at level P <.01. Also, Pearson correlation coefficient between two variables of coping styles and perceived stress was -0.45, which is a significant correlation coefficient at P <0.01.

In general, the results of Pearson correlation coefficients indicated that there was a reasonable correlation between the research variables. Also, according to the findings of the path analysis, the correlation among variables revealed that family resources had a direct and significant effect on perceived stress (B=0.54; P<.01), the stressors' effect on perceived stress was poor and non-significant (B=0.06; P<.01). On the other hand, perceived stress had a reverse and significant effect on coping styles (B=-0.25; P<.01). Other findings suggested that family resources had a very powerful effect on psychological well-being (B=0.79; P<.01) and the effect of coping styles on psychological well-being was also statistically significant (B=0.14; P <.01).

Results of this study clearly indicated that experts can use the Double ABCX Model to evaluate, train, and intervene timely in the family of children with intellectual disabilities. As the results showed, considering the role of important variables such as family support resources, the level of perceived stress and the role of mediating coping styles, it was possible to adjust the family members of the children with specific needs, especially for mothers.

Suggestions for Further Research

It is necessary to apply the present model to other groups of children with special needs as well as to other family members. Also, the Double ABCX Model training program can be developed and implemented in early intervention and rehabilitation of children with special needs that can be investigated in the future.

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THE EFFECT OF INCLUSION INTERVENTION PROGRAM ON THE ATTITUDES OF TERTIARY STUDENTS TOWARD INCLUSION IN SINGAPORE

Karen P. Nonis
Edwin Cho
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Conceptual Framework and Literature

The median age of Singaporeans has increased significantly over time, from 18 years in the 1960's to 40.5 years (Singapore Department of Statistics, 2017). It is project that 30.7% of its population will be above 60 years of age by 2030 (UN World Population Report, 2015). The Ministry of Social and Family Development, Singapore (MSF, 2017) reported that the prevalence of special needs population based on age indicated a trend towards an increase rather than a decrease with age. Specifically the data indicates that the student population is at approximately 2.1% while individuals aged between 18 to 49 years show a 3.4% prevalence of special needs within the resident population (MSF, 2017). The implication of such figures suggest that Singaporeans will be challenged to meet the needs of not only an ageing population but also those with varying special needs.

Nonis' study (2006) of 70 trained preschool teachers (Mean Age = 29 years) in both kindergarten and child care centers showed a positive attitude towards integrating children with special needs into their classrooms. Nonis (2006) wrote that the majority of the teachers were open to integration (60%, n = 45) and that their centers were also supportive of integration (77%, n = 58). Teachers, however, were not trained to teach children with special needs. The teachers were of the opinion that children with special needs could learn to speak and communicate better and change their behaviours if they were integrated into regular classroom. The author suggested professional development was necessary for the preschool teachers. The study was timely to understand the needs of teachers in the early year's educational programs as Singapore begun to integrate children into regular schools. A survey commissioned by the Lien Foundation, Singapore (2016) found that while Singaporeans were willing to share public space, the report indicated that they were unwilling to interact with the special needs population. In addition, only half the parents surveyed were comfortable with their children sitting beside a child with special needs in a regular classroom. This limits the opportunities for students to interact with the special needs population, and this in turn limits

Thaver, Lim and Liau (2014) reported in their study that teachers in Singapore without experience with special needs students demonstrated negative attitudes towards students with disabilities. However, negative attitudes towards the special needs population may not be inherent. Krajewski and Flaherty (2000) suggests that increased interaction with the intellectually disabled (ID) population increases the positive attitude. This study aims to understand the attitudes of students in a tertiary educational setting towards inclusive classrooms and whether attitudes can be influenced by participating in an Inclusive Physical Activity Program.

Research Methodology

A total of 290 participants (Female = 147, Male = 143; Age Range: 16 to 20 years) from a tertiary institute were invited to participate in the study. IRB approved the research prior to data collection (HSR-CED-M, 2018-029). The study comprised of three phases which included a Demographic Survey and Pre-Intervention Survey about Inclusion, 13 week Intervention Programme and a Post – Intervention Survey about Inclusion.

The Pre and Post Intervention Survey about Inclusion was adapted from Paris, Nonis and Bailey (2018). Using a 5-point Likert Scale with 18 items, the process of review of the survey instrument by Paris et al., (2018) was conducted by the authors. This paper will report the results of Phase 1 of the study only.

Results

The results of Phase 1 of the study of Pre-Intervention showed that tertiary students in general, expressed that inclusion is a good idea (Item 6: 78%, n = 227). Overall students felt that children with special needs not only had the right to receive their education in the same classrooms as their peers (Item 1:78%, n = 226) but that opportunities should be created for such inclusive practices (Item 2:86%, n = 251). Tied to this positive expression of inclusion was the response that 83% (Item 4, n = 241) thought that inclusion would be a valuable experience for everyone in the classroom. In addition, 82% (Item 5, n = 237) expressed that inclusion would provide learning opportunities for all students. Sixty-five percent (Item 6: n = 187) were in agreement that the benefits outweigh the challenges. There was some uncertainty about their ability to work with their peers of special needs nor their understanding if lecturers were prepared for inclusive classrooms as a whole.

Recommendations

It is recommended that tertiary programmes should include students with special needs. However, lecturers should be given professional support throughout the course of any programme that includes a person with special needs. Future research should extend to include a percentage of students group interviews to develop a better insight to their responses and their concerns about inclusion in tertiary education**.**

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HIV/AIDS KNOWLEDGE, ATTITUDE, AND SEXUAL-RISK BEHAVIOR AMONG STUDENTS WITH VISUAL IMPAIRMENT IN NIGERIA

Okoli Bibiana Ifeoma
Nwazuoke Ambrose Ikechukwu
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The current study highlighted the HIV/AIDS knowledge, attitude, and sexual-risk behavior among students with visual impairment in Nigeria. AIDS/HIV has continued to be a major global health issue since it was first spotted in the United States of America in the early 1980s. Recent epidemiological data indicated that a total of 77.3 million people had become infected with HIV/AIDS and 35.4 million people had died of HIV/AIDS-related illness in the last three decades (UNAIDS, 2018). Nigeria particularly has witnessed the widespread cases of HIV/AIDS over the last 33 years and now has the second largest HIV/AIDS disease burden in the world with 3.1 million PLWHIV (UNAIDS, 2018). Studies have highlighted a number of risk factors responsible for HIV/AIDS and they include unprotected sex, multiple and concurrent sexual partnerships, early sexual debut, vulnerability to sexual violence, coercion and abuse, transactional and intergenerational sex, same-sex intercourse, intravenous drug use, high-risk sex, and non-use or inconsistent use of condoms (Fako, Kangara, & Forcheh, 2010; NACA, 2017).

One group of individuals deemed to be at a higher risk of HIV/AIDS infection and transmission are students living with visual impairment. Visual impairment is a term used loosely to encompass the totally blind, those with low vision and whose who are partially sighted (Okoli, Olisaemeka & Ogwuegbu, 2012). Although HIV-related data on students living with visual impairment are extremely scarce, a growing evidence suggests that students living with visual impairment appear more prone to sexually transmitted infections and HIV/AIDS than the non-disabled (Groce, 2004; de Beauchamp, Mac-Seing & Pasquier, 2014). The vulnerability of students living with visual impairment to HIV/AIDS is exacerbated by the pervasive misconception that they are asexual and as such, cannot benefit from HIV/AIDS voluntary counseling, testing and treatment facilities. Students with visual impairment from poor households are particularly prone to sexual risk taking, with their economic status motivating them to partake in transactional sex and serving as another limitation in their negotiating power with respect to safer sex practice (Sithinyiwe & Ngonidzashe, 2016).

It is a fact that most students with visual impairment engage in sexual activities with inadequate information inherent in sexuality and reproductive health, making them a population at higher risk of exposure to HIV/AIDS. Katuta (2011) noted that the engagement of adolescents with visual impairment in risky sexual activities is as a result of accrued factors such as lack of information on sexuality, increased physical vulnerability, the need for attendant care, acceptance and dependence on others to guide them around, life in institutions and the almost universal belief that individuals with visual impairment cannot be reliable witnesses

on their own behalf, thus making them targets for all forms of abuse. Moreover, the structurally inaccessible health facilities, unaffordable transport and communication mismatch have aggravated the situation (Wazakili, Mpofu & Devlieger, 2008).

Krupa, Chelsea, Esmail, and Shaniff (2010) opined that a number of issues such as the inability to acquire information through sight, societal norms that restrict tactile learning, the lack of appropriately packaged information (for example, the lack of literature on sexual health that is transcribed into braille), inadequate training of families, classroom teachers and rehabilitation counsellors, and the lack of nonverbal communication skills among individuals with visual impairment generally may influence the poor dissemination of information on sexual health and HIV/AIDS. Researches on sexual-risk behavior, public knowledge of HIV/AIDS and attitudes, usually aim at providing information geared towards increasing people's knowledge and awareness about HIV/AIDS and its control. However, despite the fact that both knowledge about HIV/AIDS and attitude towards sexual risk are among the most important tools in the fight against HIV/AIDS, the limited research on students with visual impairments knowledge of HIV/AIDS transmission and sexual-risk behavior and vulnerability to HIV/AIDS infection, demonstrates that they experience barriers to prevention, interventions and treatment. This fact constitutes an enormous gap in literature on HIV/AIDS and accounts for the seemingly unchanged trends in HIV/AIDS-related epidemic and deaths in Nigeria since 1990.

The study, thus, suggested the need for stakeholders, policy-makers and program designers to take into account perceptions and knowledge of HIV/AIDS and attitudes towards sexual-risk behavior among students with visual impairment, and develop strategies and more comprehensive sexual reproductive health and HIV/AIDS prevention programs targeting them. Furthermore, there should be a deliberate program of sensitization in special and integrated schools on the effect of HIV/AIDS on the students with visual impairment.

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EXCLUSION IN INCLUSION: A CASE OF LEARNERS WITH ALBINISM IN ZAMBIA

Mtonga Thomas
Mutinta Matimba Mwanamwalye
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Overview of Albinism

The term "albinism" refers to a genetic none progressive disorder, and it involves the lack of pigment production. Most people with albinism have lack of pigment in their hair, eyes, and skin. People with albinism are often a target for discrimination in almost all aspects of life. This is evidenced by the deeply rooted myths that surround this condition. The myths go as far as insinuating that their body parts can be used for occultism (Masseus, 2017). In Zambia too, such myths are deeply rooted thereby worsening the situation.

The truth is that the vision of learners with albinism is impacted; hence, all people with albinism, have visual impairment to some degree. This affects their education to a larger extent. As if this is not enough, people with albinism often suffer rejection and poor social and emotional integration.

In Zambia, the majority of learners with albinism are compelled to seek and acquire their education from special schools for the blind and in regular schools. Many educationists feel that this is some form of inclusion. The learners in special schools for the blind do not enjoy their education in any way because in the said special schools, the learners with albinism are made to read and write braille instead of the acceptable large print. In special schools, the learners are forced to leave their homes in order to learn in residential schools.

Today, about 42% of learners in special schools for the blind are children with albinism, which is a serious exclusion of learners with albinism in the education system. Knowing that individuals with albinism merely suffer from visual loss because of the absence of pigmentation, they can learn in any other ordinary school with less difficult. Such learners require reasonable accommodation in order for them to receive education on equal basis with others. Therefore, the compulsion, coercion, persuasion, and undue influence of these learners with albinism going to special schools for the blind is a systematic form of exclusion and discrimination that they suffer. As a result, this article seeks to demonstrate the discrimination suffered by learners with albinism in Zambian schools in the name of inclusion.

Objectives

The study was guided by the following objectives: 1) To find out the educational strategies for learners with albinism in Zambia; 2) To establish the extent to which Inclusive education provides for the special needs of learners with albinism; 3) To establish challenges learners with albinism face in inclusive education.

Method

The research used a qualitative approach to gather information by use of interviews and focus group discussions.

Findings and Discussion

The research findings and discussion of findings were guided by the research objectives and classified by three themes. These will be discussed in further detail.

Educational Strategies. This study revealed that from the special schools for the blind and the conventional schools under study, showed a high prevalence of learners with albinism in schools for the blind in Zambia as compared to the regular schools. A study conducted by Mtonga (2017) indicated that if learners with albinism were removed from the special schools for the blind, probably some of the schools would close. In the face of inclusive education, it was discovered that there were fewer learners with albinism in the conventional schools. Learners with albinism when put to learn in special schools for the blind, were coerced and persuaded to learn braille while in the conventional schools and they were subjected to read the normal print. One of the respondents in this current study voiced, *"There is a dire need that teachers understand how to help children with albinism if they are going to receive appropriate educational services."*

Provision of Special Needs in Inclusive Schools. Teachers and learners under study intimated that the only time they received a bit of attention in the conventional schools was when they were writing examinations. Examinations are normally printed in enlarged font.

Challenges Faced by Learners with Albinism in Inclusive Schools. There are a number of challenges that came to the limelight during this research. The major problem that was highlighted by most of the respondents was that of forcing learners with albinism to learn in special schools for the blind and to learn braille. There was also a realization that most of the schools that purported to practice inclusive education did not consider use of large print for written work to be administered to learners with albinism. Stereotyping and discrimination were still rampant in conventional schools. There were often accommodations, even by putting things on a reading stand or bringing things up closer to them, to make it easier and to avoid neck strain. Hong and Repacholi (2006) suggested that, for the most part, a student with albinism could go into a regular classroom and do well with some minor adaptations, some environmental changes, and be able to keep up with the other students with little difficulty.

Conclusion and Recommendations

This study revealed that learners with albinism were being coerced and persuaded to learn braille in residential schools for the blind, which was a form of exclusion in inclusion. Schools must realize that sun protection is crucial. Behavioral habits such as always wearing hats and protective clothes, as well as avoiding sun exposure during the middle of the day, should be encouraged and monitored. All interventions, such as the provision of low vision devices, should be monitored and their use evaluated frequently if inclusive education is going to be a reality.

The following are some of the proposed solutions to the challenges that learners with albinism are facing in inclusive education:

- Allowing children with albinism to wear their hats inside the classroom.

- Allowing children with albinism to sit in the middle at the front of the class, have their own book even if others are sharing, and use low vision devices such as hand-held magnifiers (if available and acceptable to the child).
- Considering the print size of reading materials.
- Allowing learners with albinism to use recorded materials may be some accommodation that can work out positively.
- Providing basic information on albinism and appropriate strategies for educational inclusion should be integrated into the curriculum training for classroom teachers.
- Incorporating albinism and its associated visual impairment as a training topic for specialist special education needs practitioners; this would involve training the lecturers at colleges responsible for delivering the training.

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LEADERSHIP POSITIONS FOR PEOPLE WITH DISABILITIES FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Background

Leadership issue has become a regularly discussed topic in different places and by various people and groups. According to Bolden in Iheriohanma, Wokoma, and Nwokorie (2014), it is hard to turn on the television, open a newspaper or attend a conference without coming across numerous references to leaders, leadership, and leading. The underdevelopment level of Nigeria's economy, the spate of marginalization and discrimination of certain categories of individuals in the land, level of unemployment among youths especially those with disabilities, among others, indicates the obvious reality that there is a serious leadership problem in the country. Leadership in Nigeria, as in other countries like America and Britain, should be accommodating and participatory as it relates to inclusiveness and should have no phobia regarding disabilities.

The common perception, held by policy-makers and the public at large in Nigeria, is that people with disabilities and disability issues are viewed in terms of charity and welfare. Consequently, this viewpoint is a significant factor that seriously militates against the social inclusion and leadership positions for people with

disabilities within the country. Land and Upah (2008) attributed this to the fact that, 1) at national level, there is no disability legislation addressing discrimination that has been enacted within Nigeria, and 2), there is no form of social protection for persons with disabilities in Nigeria, which exacerbates the lack of participations that they encounter.

Persons with disabilities (PWDs) are individuals that have a type of disability and, as result, they need special education and/or some adjustments in the environment in order to make progress in school and life in the society. PWDs are a heterogeneous group having different capacities and needs and contribute in different ways to their communities. They can include individuals with hearing impairments, visual impairments, speech/communication disorders, emotional disorders, intellectual disabilities, physical disabilities, and learning disabilities (Nwabueze, 2016),

Leadership is the art of persuasion, conviction or example by which a person directs a group in pursuance of set objectives held by him or shared with the group. According to Ward (2017), a simple definition of leadership is the art of motivating a group of people to act towards achieving a common goal. It occupies a critical position in seeking development in the educational, socio-political, economic, and religious spheres of people, whether they disabilities or not.

Olaitan (2017) observed that individuals with disabilities are people with extra talents, yet forgotten; when they are statutorily given opportunities they would attain their full potential and be lifted out of poverty. Many PWDs have successfully overcome their challenges and have emerged as powerful effective leaders at local, state, and federal levels in different nations. Some include Robert Dole, a onetime United State of American Senator who had physical disability. Another is Danny West, a leadership trainer and coach and lives with a disability—dyslexia and HIV. Richard Branson, living with learning disability, was the founder of Virgin Airlines and other Virgin companies. George Wallace, a onetime Alabama governor had physical disability/impairment. Also Lenin Moreno, Vice President of Ecuador from 2007 to 2013 who became the elected President of the country from 24th May 2017 to this day has a disability and uses a wheelchair (Disabled World 2018).

People with disabilities, if given access, can suitably take up some leadership positions in Nigeria. Such positions can include: Vice Chancellor of a university, Minister, Member of the national assembly, Chief Executive Officer (CEO) of a company, Professor, Inventor of gadgets, State governor, Social activist and Magistrate. Disabled World (2018) in this view made a list of politicians and world leaders who held offices while having significant physical disabilities of varying types and yet performed wonderfully well. The results, however, also showed that PWDs faced many barriers, which hindered them from participating in leadership positions in Nigeria. These ranged from lack of legislation, charity or welfare approach to disability, perceived lack of capacity to exclusion into special schools and the rest of the like limitations. Lang and Upah (2008) affirmed that people with disabilities in Nigeria encountered a plethora of attitudinal, institutional and environmental barriers.

Recommendations

Involvement of PWDs in leadership is fundamental to sustainable democratic development. Strategies like inclusive education, involving PWDs in voter education efforts, awareness creation on disabilities, conducting leadership development programs should be applied to enhance the involvement of PWDs in leadership position in the country. The International Foundation for Electoral Systems (IFES) (2014) stated that international treaties – such as Article 25 of the International Covenant on Civil and Political Rights19 (ICCPR) and Article 21 of the Universal Declaration of Human Rights 20 – protect the right of persons with disabilities to vote and be elected. The Nigerian government should pass disability legislation, and develop effective and efficient administrative infrastructure for its implementation.

Suggestions for Future Research

Future research efforts should extend the literature base on the solutions to the barriers hindering people with disabilities from participating in national government leadership. Furthermore, the present topic should be replicated in other developing countries.

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INCLUSIVE SCHOOLING PRACTICE IN LUSAKA: INTERACTING WITH LEARNERS WITH DISABILITIES

Moono M Muvombo
Daniel L. Mpolomoka
Phydes Ng'uni Kaunda

Conceptual Framework and Background

The school and classroom operate on the premise that students with disabilities are as fundamentally competent as students without disabilities. Therefore, all students can be full participants in their classrooms and in the local school community regardless of any challenges they may have and are placed in age-appropriate general education classes that are in their own neighborhood schools to receive high quality instruction, interventions, and supports that enable them to meet success in the core curriculum (Bui, Quirk, Almazan, & Valenti, 2010; Alquraini & Gut, 2012). Much of the inclusive education movement is related to legislation that students receive their education in the least restrictive environment (LRE). This means they are with their peers without disabilities to the maximum degree possible, with general education the placement of first choice for all students. Successful inclusive education happens primarily through teachers accepting,

understanding, and attending to student differences and diversity, which can include the physical, cognitive, academic, social, and emotional.

Research

A descriptive research design was employed in this study. It was conducted on a convenient sample of a total of 91 participants (7 head teachers, 35 teachers, 7 guidance and counseling teachers, 42 learners with disabilities) were drawn from seven schools in Lusaka. Data were collected through focused individual interviews and focus group. Data were analyzed using descriptive and thematic methods. For the purpose of this research, observations and different questionnaires were used for head teachers, guidance and counseling teachers, and learners with disabilities. The research was intended to find out the extent to which learners were involved in inclusive education; teacher's knowledge and practice of inclusive education; Data were analyzed using both quantitative and qualitative analysis. Specifically, it was analyzed using the qualitative narrative and thematic analysis methods (Adler, 1996).

Results

Research findings established that learners with disabilities to some extent were involved in the education process with learners without disabilities while the majority did not benefit. The teachers explained that the process depended on different approaches and methods used in the inclusive process and the extent of the severity of disability. The teachers also explained that the initial teacher preparation offered in teacher training colleges was not adequate to equip teachers with inclusive education teaching methodologies. One teacher explained that "*What I was taught at university was just a fraction of what I found in the real setting and how to handle such learners with disabilities with those without disabilities was very difficult for me the first few years of teaching"*.

The research findings established that learners with disabilities wanted to be part of the learning process in inclusive education but mostly lagged behind their peers. One student with reading disabilities explained that *"by the time i would finish reading a passage my friends would have finished and start doing other things which feels bad and sometimes I just stop reading"* while another explained that he felt embarrassed when he failed to respond as he stuttered.

The materials were key in these schools and most schools lacked adequate materials for inclusion to fully take place such as braille machines, printers, and other equipment. While other schools had the equipment, the teachers had no knowledge about how to use and help pupils. Finally, it was discovered that most teachers preferred to include learners with mild to moderate disabilities, which include physical, visually, and hearing than those with intellectual disabilities. The majority of teachers interviewed ranked the needs of children with emotional and behavioral difficulties as being most difficult to meet, followed by children with learning difficulties, followed by children with visual impairment, and followed by children with a hearing impairment. Teachers' attitudes appeared to vary with their perceptions of the specific disability, as well as the demands that students' instructional and management needs would place on them.

Recommendations

The government should invest in inclusive learning that fits, nurtures, and supports the educational needs of every student by providing adequate resources for inclusion. The study recommended that sensitization programs be intensified to teachers and the community at large on the importance of inclusive education. The government needs to restructure the curriculum and revise the policies to cater for each and every child. The school needs to shoulder some of the responsibility of promoting genuine influence over the inclusive process of children as equal partners in the inclusion process of learning. Continuing Professional Development (CPD) should systematically be implemented specifically for teachers of learners with diverse needs in inclusive schools and the Ministry of Education should invest in inclusive teacher education and induction. Future research should be conducted in other areas of Zambia so as to have more information about teachers' experiences as well as skills and knowledge they have in teaching inclusive classrooms.

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BRIDGING THE GAPS IN LEARNING TOWARDS INCLUSIVE AND EQUITABLE QUALITY EDUCATION

Florence Akua Mensah

Background to the Study

The introduction of the philosophy of inclusive education as stated in the Salamanca Statement and framework for action on special needs education in 1994, of which Ghana was a signatory to, has resulted in several

attempts to deduce what pedagogy is available for its effective implementation as stated by Loreman (2017). Thus, Ghana has initiated six models of implementation. These models, as stated in Hayford (2013), are Integrated Education Program (IEP) for children with low vision and blindness; special school as home for pupils with blindness; units for those with intellectual disabilities; inclusive schools with special education resource teacher support; inclusive schools without special education resource teacher support, and hostel support. This dilemma brought about the 2015 Inclusive Education (IE) policy, its policy standards, and its implementation documents published in 2015 (p.4. Government of Ghana Inclusive Education Policy: Ministry of Education, 2015).

Currently, the government of Ghana is repackaging its educational policy to meet full implementation of IE where teacher professionalism is the target since they are the implementers of the policy. The idea seems to be in place as the United Nations Development Program (UNDP) is preparing to achieve sustainable global goals by 2030 and emphasizing goal four as "ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all".

However, with the exception of universal design for learning framework in the Ghanaian IE policy document, there has not been any clear-cut path in terms of what approaches and strategies to use in teaching. Meanwhile, Forlin, Chambers, Loreman, Deppeler, and Sharma (2013) mentioned that the pedagogies appropriate for inclusive education are for addressing the needs of all learners in order to minimize or eliminate the singling out of individuals for special teaching, thus bridging the gap between inclusion and equitable quality education. Also, Florian and Spratt's (2013) Inclusive Pedagogical Approach in Action (IPAA) framework is a new approach that has developed and is worthy of attention. This background encouraged the researcher to investigate the inclusive pedagogies that teachers in inclusive classrooms are practicing the most and the reasons for its practice.

Research

An exploratory design was adopted to clearly define the inclusive pedagogies that teachers in inclusive classrooms are practicing the most in an attempt to bridge the gaps that exist in learning towards inclusive and equitable quality education. A semi-structured interview was used to collect data for analysis. This qualitative approach was necessary in order to solicit the perceptions of teachers pertaining to how they met the unique needs of learners in inclusive classrooms using the inclusive pedagogies. Ten teachers were purposively sampled from an inclusive education school. The criterion for selection of the school was based on the fact that a diverse range of learners (including learners with disabilities) were admitted. The teachers whose classes comprised learners with special needs and who exhibit knowledge and skills in teaching learners in inclusive classrooms were sampled. Ethical considerations were observed as part of procedure for gathering data for the study.

Results

A majority of the teachers had heard of IE and saw the policy document from workshops but did not have the details of the documents. In addition, most of them were not precise on the concept of IE; rather, they mentioned the special needs individuals who had been added to their classes. They, however, endorsed the practice of inclusion though knowledge on it was scant. For pedagogical approaches, teachers generalized the information at the various levels, saying they used demonstration, activity, and several other methods they did not even notice. Evidently, teachers did not know of Universal Design for Learning even though it has been stated in the IE document to be practiced, and they could not identify any other design for learning in inclusive classroom. In meeting diversity of learners in inclusive classroom, it was evident that teachers were complaining of large class sizes, strenuous work, and use of extra time as affecting their efforts. Meanwhile, teaching one-on-one was a particular strategy mentioned for accommodations.

Recommendations

It was recommended that further in-service training and awareness creation be made on the policy, allowing one-on-one interaction on the document. Further research on UDL and other recommended inclusive pedagogies like DI and IPAA must be made to establish their effectiveness in teaching to meet diversity for equity.

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INCLUSIVE EDUCATIONAL PRACTICE IN NIGERIA: MYTH OR REALITY

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Background

The foundation for achieving sustainable transformation in the social and political-economy of any society is education. The term education refers to all human activities that are geared towards enabling an individual member of the society develop into a mature and functional member of the society. A major challenge facing the educational system in Nigeria and the world over is the practice of inclusive education. The reason being that, this system of education is seen as an approach to serving children with disabilities within general education settings. In Nigeria, the education of children with special educational needs started with segregation (Olukotun, 2004); however, the segregation system had its disadvantages; it failed to recognize the fact that children with special educational needs were part of the community and the society at large. This implies that segregation placed more restriction and social handicap on the social needs of youths and adults in their later years. The benefits of education can only be realized if the system of education allows the integration of children with special education needs by addressing their specific needs and aspirations within the mainstream educational system irrespective of physical, socio-economic, and political status or background.

Inclusive Education

The term inclusive education according to UNESCO (2009) is a process that involves the transformation of schools and other learning centers to cater to all learners including boys and girls, students from ethnic and linguistic minorities, rural and urban populations, those infected and affected by HIV and AIDS, those with and without disabilities. The nature of students with special educational needs precludes access to learning

making it important to design alternative strategies for assisting children with special educational needs. One such strategy is inclusion, which enables children with special educational needs and regular learners to be brought together in an educational arrangement under one learning environment. Inclusive education, according to Bryant, Smith and Bryant (2008) as well as Salend (2001) can be interpreted as the philosophy and practice for educating students with disabilities in general education settings. Inclusive refers to the full-time placement of children with mild and moderate disabilities in regular classrooms.

Myths of Inclusive Education

Most teachers who are in inclusive school, according to Nwazuoke (2000) and Mittler (2000) appeared to know little or nothing about children with special needs. Bevan-Brown (2000) reported having "a whole truck load" of stories about poor attitudes and expectations of teachers to students with disabilities. Bevan-Brown found that many teachers demonstrated negative attitudes towards students with special educational needs in secondary schools. According to Garuba (2003), inclusion is a step further in mainstreaming as it presents a means by which a school attempts to respond to all pupils as individuals, by reconsidering and structuring its curricular organization and provision and allocating resources to enhance equality of opportunity.
Inclusion is about the child's right to participate in general school programs regardless of their disabilities unlike special schools that are meant for students with disabilities only.

According to Nwazuoke (2000) mainstreaming of students with special educational needs into public secondary schools in Nigeria was faced with the problems of lack of relevant facilities and materials. This has not changed because adequate provisions are not made to cater to the learning needs of children with special educational needs in the inclusive settings. The special schools are not evenly distributed to cater to the needs of learners and in most cases are named after a particular disability to further stigmatize whoever attends such schools. Examples are "Schools for the blind", "Schools for the Deaf and Dumb", "Schools for the handicapped"

Reality

The reality based on a look at the policy of education in Nigeria reveals that, there is contradiction and gaps between the policy statement and the actual practice. The setting up of more special schools for children with special educational needs negates the principle of inclusive education which is to provide equal access opportunities to education regardless of any barrier. Another fact is that in most situations only children with special needs have access to free education at all levels while provisions are not made for developing the children with special needs technically and in sport areas.

Conclusion

Inclusive education is consequently not a marginal issue but rather central to the achievement of high-quality education for all learners. Its effective implementation will produce more inclusive societies that will ensure meaningful development and promote sustainable peaceful coexistence among citizens since education takes place in many contexts, formal, non-formal and informal, and within family circles and the wider community.

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ACCESS TO COMPUTER ASSISTED LEARNING (CAL) FOR CHILDREN WITH DISABILITIES IN SCHOOLS IN LUSAKA DISTRICT

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Background

This study sought to investigate learners' access to Computer Assisted learning (CAL) in schools in Lusaka District. CAL involves the use of instructional tools presented and managed by a computer. The instructional computers either present information or fill a tutorial role. They test the student for comprehension and give the student feedback for overcoming difficulties, as well as guide the student in recovery actions when errors and mistakes appear (Cartelli, 2009).

A number of learners in Lusaka cannot benefit fully from a traditional educational program because they have a disability that impairs their ability to participate in a typical classroom environment. For these learners, computer-based technologies can play an especially important role. Not only can computer technology facilitate a broader range of educational activities to meet a variety of needs for students with disabilities, but adaptive technology now exists that can enable even those students with severe disabilities to become active learners in the classroom alongside their peers who do not have disabilities (Hasselbring et al., 2000).

Special Education entails that every learner receives all related services required to meet the individual learning needs such as computer assisted learning. Computer-aided education was initially introduced in Zambia as an innovative activity. It is against this background that the researchers sought to undertake the study to establish how accessible the use of CAL is to learners with disabilities.

Research

The objective of the study was to establish whether or not learners with disabilities had access to computers for learning. In addition, this study wanted to find out the challenges that came along with CAL and to ascertain the relevance of CAL while examining teachers' roles in helping learners access CAL. The study used a mixed

methods research design by use of questionnaires and interviews to generate answers. The target population was comprised of the children with special needs, special education teachers as well as administrators of schools under study. Both random and purposive sampling techniques were used to select the participants for the study.

Results

The study revealed that learners with disabilities did not have access to CAL despite having a computer laboratory. Learners with special needs had a period on their timetable for computer skills, which was overlooked as the teachers did not have the knowledge and skills to teach, nor the appropriate software. One of the male teachers under study intimated that, "*The school has computers but they aren't equipped with the appropriate software that would be beneficial to the learners with disabilities".*

There was also completely no involvement of parents in the education of their children, which could be one potential reason why schools were laid back on providing learners with disabilities access to computer assisted learning. Forty percent of the population studied had knowledge of CAL while 70% had only an idea of what it was. This made it a challenge not only for the learners but for the teachers too. The study further revealed that 80% of the population that took the study stated that they had challenges with providing access to CAL. To a larger extent this was because Zambia continues to face challenges such as inadequate teacher training and inaccessibility to cheaper and affordable computers. Major issues in integrating technology in education uncovered were: ICT infrastructure, quality content that is local, relevant teacher training, and education delivery through public private partnerships. These interdependent issues need to be addressed in order for technology to be integrated to formal education to improve the quality of education in the government schools.

Recommendations

Based on the findings of the study, the following are some of the recommendations listed below. Teachers must be trained on different technologies that can be used for purpose of learning. This can be provided as a course in universities and colleges that are training special education teachers. The government must invest in adequate infrastructure, various software and technology and make it accessible to all schools, keeping learners with special needs as priority. It is of utmost importance to educate as many people through workshops, educational talks and media on the benefits of computer assisted learning so that parents and guardians of learners with disabilities are aware of the various opportunities and techniques that can be beneficial to their children and therefore can be open to the idea of the digital age generation. It is imperative that research be done to establish teachers' views on the benefits and access of CAL for all learners.

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