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Assessment and Curriculum Modification for Grade 1 Students with Disabilities in Tanzania: A Pilot Study

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Purpose of Study

The purpose of this study was:

- 1) to analyze aggregated student assessment data from grade 1 students at a public government primary school in Northern Tanzania to determine the efficacy of a curriculum based screen tool
- 2) to examine current practices of inclusion for Tanzanian children in the early grades.

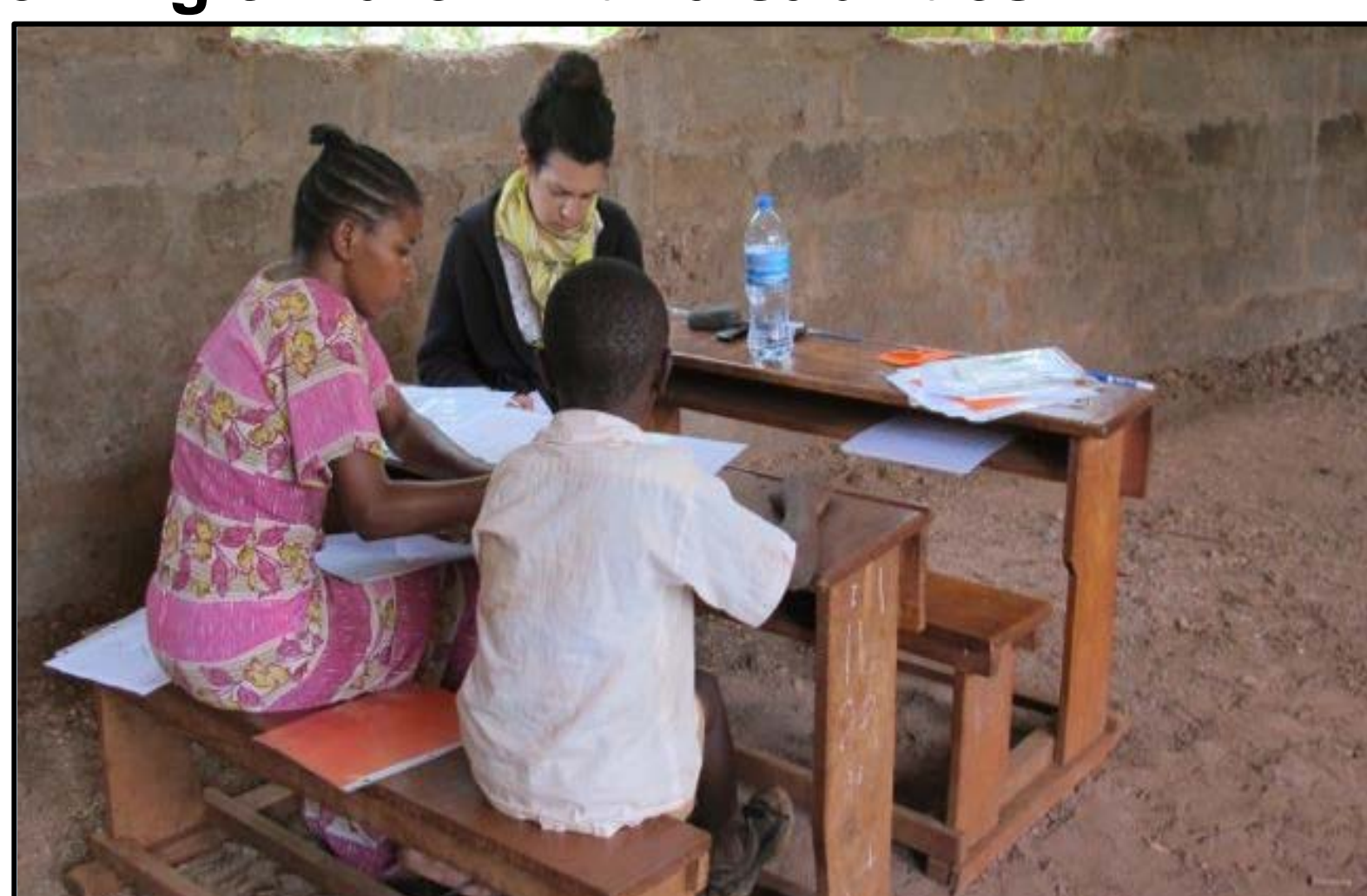
This project is a study and a service to the community.

Research Questions

- 1) How does the school address the education of children with special needs in the grade 1 classroom?
- 2) How are the teachers prepared to work with children with special needs in their classroom? What strategies and techniques do they use?
- 3) In what ways are the assessment tools culturally relevant? How well do they assess academic skills?
- 4) How can this assessment tool screen children in need of additional supports?

Background

- Between **2-40% of children with disabilities** between ages 7-13 attend school (Ruyobya & Schneider, 2009)
- **176 schools with programs** for students with disabilities in Tanzania and most are primary schools (grades 1-7) (Karakoski & Stroem, 2005)
- Children with disabilities are acknowledged as having the **human right to an education** and the right to participate in their communities as active members.
- Since 2008, the Tanzanian government has been working with many local organizations and outside donors to develop more **inclusive practices and strategies for addressing the challenges**
- Primary schools use a standard national curriculum for all students & **currently have no process for identifying or systematically serving children with disabilities.**



Student being assessed by local collaborator with NGO director learning assessment process



Grade 1 teacher instructing the class in literacy lesson.

Study Design

In cooperation with an NGO, we administered a curriculum-based assessment based on national curricula and community funds of knowledge that are critical for life and vocational skills for children in Tanzania (Stone-MacDonald, 2013).

The assessment was administered in Swahili and piloted in the June 2013 to gather aggregate data on the academic performance of all children in grade 1, test the cultural relevance of the assessment, and identify those children who were struggling the most in school at the beginning of grade 1 (their first year of school).

This study used a three-pronged approach data collection strategy: 1) assessment data from 152 grade 1 students
2) ethnographic classrooms observation notes
3) Teacher and parent interviews using a social-emotional and adaptive skills questionnaire with families of children in the lowest 10% on the assessment.

Participants

- 152 of 158 students from grade 1 classroom were assessed (total population for the school in grade 1)
- 19 were identified for further assessment through parent & teacher interviews
- 3 of 4 teachers were interviewed
- 20 parents/guardians were interviewed

All interviews were conducted in Swahili by a local teacher/collaborator with researcher present to ask additional questions.

Issues around Language/Terminology

- Use of a local teacher/collaborator useful for gaining parent/guardian trust
- Familiar with words that families would understand to describe disability and asked questions that were culturally appropriate
- Used *shida* (problem) instead of *ulemavu* (disability)
- Cultural insider able to gather additional information
- Dissonance between policy language and local terminology for disabilities and learning challenges

Results

Assessment results

M= 67 Scale=0-100% SD=15.3 Range=16-82

19 students were identified based on scores and other observations during assessment process and classroom observations.

During the assessment period, grade 1 students also took mid-year school tests.

School Test

M=306 Scale=0-700 SD=171 Range=12 to 664

The students results on the two assessments were strongly correlated $r(150) = .64, p < .000$.

Of the 19 students, all received additional individual and group tutoring at school from July to December 2013. All 19 were reassessed in January 2014 (results forthcoming).

Qualitative Results

Through interviews, we learned that several students had experienced health issues. We connected with local health clinics.

- 3 children were examined for hearing concerns,
- 1 child for a speech and language concern
- 4 students for a vision concern
- 2 students for concern
- 2 children saw a pediatrician for blood tests for concerns about anemia and malnutrition

All students did well on:

- Basic communication skills
- picture identification
- numbers 1-10
- basic vowels
- science skills

Most students had difficulty:

- reading sentences
- identifying colors and shapes

Some students were able to:

- identify syllables and words
- write basic words
- identify numbers
- count small amounts
- add and subtract basic facts
- identify matching pictures
- Identify big and small objects

Classroom teachers do not have knowledge to students with special needs. Teachers thought of students with special needs as students with physical or multiple disabilities, or outward markers of cognitive disabilities.

Discussion Questions

- 1) How to methods of assessment and discussion of results vary by culture?
- 2) How do symptoms and criteria for disability categories vary by culture and how are benchmarks best established?
- 3) What role do curriculum-based assessments play in initial assessment of disabilities?

Discussion

Given the large class size and limited instructional time, most students demonstrated several skills to indicate progress in the curriculum after six months in grade 1.

The screening is still a work in progress and it needs to be piloted with more children and in other locations to determine how well it can help identify children at risk for learning disabilities or school failure or who have undiagnosed developmental disabilities.

It is still not clear what the various options are for children after they are identified. Of the 19 children:

- 3 are now attending a special school for children with ID or ASD (1 as a boarder and 2 as day students)
- All 19 received extra tutoring
- 3 are being seen by a social worker
- 4 are being seen by an OT

How can the children stay in the classroom and receive the support they need?

Next Steps

- Teacher Training for additional tutors
- Training for classroom teachers to support identified students
- Further Assessment of new year of grade 1 students for assessment validation
- We want to validate this assessment as a screening tool for identifying students with LD and ID



Training local teacher and NGO director on strategies for improving literacy skills using culturally relevant materials

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