Exploring Classroom Teachers' Awareness of Pupils with Learning Disabilities: Focusing on Public Primary Schools in Tanzania

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Abstract
This study explored the presence of pupils with learning disabilities in regular primary schools and whether or not the classroom teachers were aware of their presence. Data were collected using questionnaires, classroom observation guide, interview schedules, and documentary review checklist. Based on exploratory research design, the study was guided by the Activity theory. A sample of 200 participants was drawn out of 11,304 eligible persons (100 pupils out of 10,000 eligible children and 100 teachers out of 1304 in public schools). The collected data were analyzed thematically. The descriptive statistics used included frequencies, means, charts, and tables. Indeed, 15% of pupils in regular schools have learning disabilities even though few teachers were aware of their presence and how to provide appropriate instruction for their learning. This is higher than 10-12% portrayed in the existing literature.
Keywords: special needs education, learning disabilities, learning difficulties, disabilities, impairment, and inclusive education.

1. INTRODUCTION

Learning Disability is a condition in which children despite appearing 'normal' are unable to perform commensurate to their age and ability levels due to a basic psychological problem. This psychological problem causes a discrepancy between the child's achievement and their actual intellectual ability in oral, listening, comprehension, reading and written expression skills (Ross, 1977). Although learning disabilities may occur concomitantly with other handicapping conditions, they are not the result of those conditions or influences (Wood, 2000). For example, they may co-occur with sensory impairment, mental retardation, serious emotional disturbance, or with extrinsic influences such as cultural differences, insufficient or inappropriate instruction. Causes of learning disabilities are not clear.

Students with learning disabilities are not simply the low achievers i.e. students without disabilities whose academic performance is below that of their classmates. These students' reading achievement differs dramatically from students without learning disabilities as well as from those who might be considered low achievers (Fuchs et al., 2002). However, it is difficult to distinguish students with learning disabilities from students who are low achievers for other reasons even though a distinction does exist (Fuchs et al., 2001). Students with learning disabilities generally perform better on intelligence tests than low achievers do. Low achievers, on the other hand, tend to score higher on achievement tests than those with learning disabilities do (Turnbull et al, 2004).

Some of the literature shows that the cause of learning disabilities is not known since their inability to learn cannot be explained by intellectual, sensory, or health factors (Heward, 2005). Most researchers and educators however, believe that learning disabilities result from a central nervous system dysfunction – that is from an underlying neurological problem (Hallahan and Mercer, 2001).

A learning disability can cause a person to have trouble in learning and using certain skills. The skills most often affected are: reading skills, writing, auditory processing, spoken and written language skills, abstract reasoning, visual processing and visual spatial skills and doing mathematics (Mather & Goldstein, 2001). Learning disabilities (LD) however, vary from person to person. One person with learning disabilities may not have the same kind of learning problems as another person with learning disabilities. One person may have trouble with reading and writing. Another person with learning disabilities may have problems with understanding Mathematics. Still another person may have trouble in each of these areas, as well as with understanding what people are saying.

Rutter and Taylor (2008) contend that children or young people who have a general learning disability are

aware of what goes on around them. However, their ability to understand and communicate may be limited, and they can find it hard to express themselves. Speech problems can make it even harder to make other people understand their feelings and needs. They can become frustrated and upset by their own limitations. When they compare themselves to other children, they can feel sad or angry and think badly of themselves.

For a parent, it can be distressing to find out that their child has a general learning disability. It may be hard for them and other members of the family to understand why the child is like this. It can also be hard to communicate with the learning disabled child, difficult to manage their behaviour and hard for other people to understand (Gillberg *et al.,* 2006). Similarly, Gillberg *et al.,* (2006) argue that brothers and sisters of the child with LD may be affected in a number of ways. They may feel jealous of the attention given to their disabled brother or sister or embarrassed by their behaviour. They may even be teased at school. Quite often they can feel personally responsible for their disabled sibling or their distressed parent.

There is no "cure" for learning disabilities. LDAC (2001) argues that the learning disabilities are lifelong. However, studies have shown that early identification and intervention of learning disabilities have good results. Children with learning disabilities can be high achievers and can be taught ways to get around their learning disability. With the right help, children with learning disabilities can and do learn successfully. Appropriate instructional strategies are suggested to enhance the accessibility of course instruction, materials, and activities. Child Development Institute (2004) designed general strategies to support individualized reasonable accommodation for pupils with SNE. These include: keep instructions brief and as uncomplicated as possible, allow the student to tape-record lectures, clearly define course requirements, the dates of examinations, and when assignments are due. Provide advance notice of any change; provide handouts and visual aids, and use more than one way to demonstrate or explain information. When possible, break information into small steps when teaching many new tasks in one lesson (state objectives, review previous lesson, summarize periodically). Also, provide assistance with proofreading written work; allow the use of spell-check and grammar–assistive devices. Allow the student the same anonymity as other students (i.e., avoid pointing out the student or the alternative arrangements to the rest of the class) (Child Development Institute, 2004).

Several studies worldwide have reported that the regular teachers could not successfully teach students with disabilities due to different factors that might impact upon teacher's acceptance of the inclusion of children with disabilities in mainstream classrooms. In these studies, gender and age were found to influence teachers' attitudes towards acceptance of children with learning disabilities. Centre and Word (1987) stated that because of these attitudes, students with disabilities often spend too much time without instructional activities. They also state that teachers report frustration, burden and inadequacies because they doubt if they have the ability to meet the individual needs of students with special needs in their classrooms.

It was against this background that the researchers sought to investigate the classroom teachers' awareness of pupils with learning disabilities. The aim was to strengthen teachers' efficiencies and effectiveness in instructing pupils with learning disabilities and, therefore, to improve the quality of education for pupils with learning disabilities in inclusive settings in Tanzania.

1.1 METHODOLOGY

The study targeted standard three and four pupils and teachers from public schools in Kibondo District, Kigoma Region. It adopted the Activity Theory (AT) assuming that social interaction is crucial to child development (Moggridge, 2007). One way that children interact with the world they do not understand is by mimicking adult activity. The mimicking of adults and typical peers is critical to learning for children with disabilities (Bellamy, 1996). This social scaffolding between children with disabilities and their teachers or peers can be mediated by the educational experience (Bransford, Brown, and Cocking, 2000).

The study employed exploratory design where the questionnaire, observation and interview schedules were used in gathering relevant data. Non-participatory classroom observation using test materials (comprising relatively structured and unstructured assessments) was conducted in identifying pupils with learning disabilities in reading and writing. The data collected were analyzed qualitatively and quantitatively. The descriptive statistics used included frequencies, means, charts, and tables.

The researchers observed content validity by constructing all the important items on the study instruments and ensuring that all study objectives were covered in the instruments. The questionnaire and observation schedules were also pretested to 10% of the sample to capture and rectify deficiencies in the items.

1.1.1 RESULTS

Results are presented following the objectives and research issues as shown hereunder:

I. Identification of pupils with learning disabilities at classroom level

One hundred pupils were screened for LD characteristics. Findings are presented in table 1:

The results in Table 1 depict that, 54 pupils i.e. 22(41%) girls and (32)59% boys showed difficulties in talking/listening. They also show that 54 pupils demonstrated serious difficulties in reading, 24(44%) were girls and 30(56%) were boys. Fifty nine pupils showed difficulties in reading, among them 24(41%) were girls and

35(59%) were boys. In Mathematics, a total of 39 students showed weakness, 19(49%) were girls and 20(51%) were boys. The table also shows that 18(53%) girls and 16(47%) boys demonstrated behavioural mal-adjustment. From these results, boys showed more learning disability characteristics compared to girls on all screening subscales, except in behavioural/emotional stability where girls exhibited slightly more difficulties.

Table 2: shows the findings on pupils' LD characteristics. These results show that 83% of the pupils had some difficulties in reading, writing and other areas in which they were screened. However, their difficulties were rated below 50% of LD characteristic features. These difficulties are therefore considered normal and might not be associated with any specific learning disability due to its low degree. On the other hand, 17% of the pupils were found demonstrating LD characteristics above 50%. These pupils 17(17%) pupils were also assessed using the questionnaire to ascertain the possibility of having a learning disability. From this further screening 15 pupils (15%) showed to have Learning Disabilities- five (33.33%) girls and ten (66.67%) boys. This is above the World Health Organization's (WHO) statistics, which estimates the prevalence rate of LD between 10% and 12% in many African countries (Kalanje, 2011).

II.   **Teachers' awareness of the presence of students with learning disabilities in their classrooms**

The study respondents included the class or subject teachers and the head teachers of the visited primary schools in Kibondo District. These were interviewed using guiding questions. The findings showed a certain level of awareness among the teachers on inclusive education and disabilities, generally. However, their awareness of the presence of pupils with learning disabilities in regular classrooms was much less as presented in the table 3:

III. Ways in which teachers identify students with learning disabilities in their classrooms

From the interview findings (Table 3), teachers identify pupils with learning difficulties based on their characteristics like low achievement on tests and assessments. Unfortunately, they label these pupils as 'impossible learners', 'dull' or 'pupils with unknown problems', which is not kind at all.

IV. **Teachers' assessment of their knowledge and skills of instruction for pupils with learning disabilities in regular classrooms**

This study assumed that knowledge and skills are related to the level of education and work experience of a teacher. The findings in table 4 and 5 show that regular teachers have varying knowledge and skills on instructing pupils with LD.

On item (1a), table 4 shows 'differing learning styles of pupils', and that 37% of the respondents had adequate knowledge, 40% had moderate knowledge, 8% was undecided, 14% had limited knowledge and only 01% had no knowledge at all. Similarly, on item (1b) 'how to adapt teaching to the differing learning styles', 40% of the respondents had adequate knowledge, 30% had moderate knowledge, 07% was undecided, 20% had limited and only 01% had no knowledge. On the other hand, 42% of the teachers had adequate knowledge on item (2) 'demands of various learning environment'. Seven percent was undecided. Another 07% had limited knowledge, while 15% had no knowledge at all.

On items (3a) and (3b) 'curriculum for the development of cognitive skills', and 'curriculum for the development of academic skills', 15% and 13% of the teachers had no knowledge, seven and five percent had limited knowledge, while 37% and 33% had moderate knowledge. Similarly, 31% and 39% of the teachers assessed their knowledge as adequate. On item (3c) 'Curriculum for the development of social skills', 18% of the teachers had no to limited knowledge, 72% had adequate and moderate knowledge, while 10% was undecided.

Table 4 also shows on items (4a) and (4b), 'Instructional and remedial methods', 18% of the teacher had no or limited knowledge, seven per cent (07%) was undecided, while 75% assessed their knowledge as moderate to adequate. This suggests that regular classroom teachers have certain level of awareness of appropriate instructional and remedial methods for learners with disabilities.

On items (5a) 'Techniques for modifying teaching methods' and (4b) 'techniques for modifying teaching materials', 20% and 12% of the teachers assessed themselves as lacking knowledge, 73% and 69% respectively had moderate knowledge to adequate knowledge, while seven and ten percent was undecided.

Table 5 shows teachers' responses on how they assessed their skills on different instructional practices. On item (6) 'interpreting and using assessment data for teaching/learning /planning', 21% of the teachers had no or limited skills, 16% was undecided, while 63% reported moderate to adequate skills on this item. Similarly, 19% of the teachers had no or limited knowledge on items (7a) 'developing and/or selecting assessment measure and teaching/learning programmes and practices which respond to cultural differences' and (7b) 'developing and selecting assessment and teaching/learning programmes and practices which respond to gender differences', ten and six percent respectively, was undecided, 18% had limited or no skills, while 71% and 38% had moderate to adequate skills.

On item 8 'choosing and using appropriate teaching/learning equipment to accomplish instructional objectives and to integrate appropriate instructional processes, the teachers showed varying skills. Seventeen percent of the teachers had no or limited skills, four percent was undecided, and 79% assessed their skills as

moderate to adequate. On 'preparing appropriate lesson plans', 17% of the teachers had no or limited skills, six per cent was undecided, while and 77% had moderate to adequate skills.

It is clear from these findings that, a substantial number of teachers lack such knowledge and skills even though 55% of the teachers claim having adequate skills in preparing appropriate lesson plans. While credit is given to recent emphasis on planning and teaching practice in teacher training, all primary school teachers should get basic skills on how to meet specific learning needs of each learner.

On item (10) 'Involving pupils in setting teaching/learning goals and charting process', 16% of the teachers had no or limited skills, six percent was undecided, while 78% claim to have moderate to adequate skills. But, involving the pupils in setting teaching/learning goals is not a common practice in Tanzanian schools and this is shortcoming in the teacher education curriculum. These findings correspond with several studies, which show that curriculum in Tanzania has continued to discredit didactic pedagogical methods (UNICEF, 2002). As such, it has failed to incorporate an active, pupil-focused, participatory approach to learning when it puts emphasis on passing examinations, instead of learning.

On 'conducting and using task analysis' i.e. item (11), 16% of the teachers had no or limited skills, 83% considered their skills as moderate to adequate, while only one percent was undecided. Also, varying skills were reported on item (12) 'Instructional strategies and materials regarding selecting/adapting/and using teaching and learning strategies and materials according to learner characteristics'. On 'selecting skills', 16% of the teachers had no or limited skills, five percent was undecided, while 79% had moderate to adequate skills. On 'adapting skills', 16% of the teachers had no or limited skills, only two percent was undecided, while 82% assessed their skills as moderate to adequate. Likewise, on 'using instructional strategies and materials according to characteristics of the learner', 54% of the teachers assessed their skills as adequate.

These skills are very important in inclusive setting where pupils have varying needs, abilities and disabilities in learning. All the same, it is evident from these results that many teachers in regular classrooms do not have adequate skills for taking into account individual differences of learners during instructional strategies.

On item (13a) 'pupils' learning objectives as regards to sequencing individualized learning objectives', 15% of the teachers had no or limited skills, 10% was undecided, while 75% had moderate to adequate skills. Similarly, on items (13b) 'pupils' learning objectives as regards to the implementation of individualized learning objectives'; (13c) 'evaluating individualized pupils' learning objectives'; and (14a) 'integrating the affective skills with academic curricular', 15% of the teachers had no or limited skills, four per cent was undecided, 81% assessed their skills as moderate to adequate. A slight difference was observed on item (14b) 'Integrating the social skills with academic curricular', when four percent of the teachers was undecided, but 16% claimed having limited to no skills, while 80% assessed their skills as moderate and adequate.

On item (15) 'using strategies for facilitating, maintenance and generalization of skills across learning environment', 19% of the teachers had no skills or limited skills; three percent was undecided, while 39% had moderate to adequate skills. On item (16) 'using teaching time properly (adequately)', 17% percent had limited or no skills, 81% had moderate to adequate skills, while only two percent was undecided.

On item (17) 'teaching pupils to use thinking, problem-solving, and other cognitive strategies to meet their individual needs', 18% of the teachers had limited or no skills, 88% had moderate to adequate skills, while only four percent was undecided. Nonetheless, most of the teaching and learning in Tanzania has remained focusing on preparing learners for passing examinations (UNICEF, 2002).

On item 18 'establishing and maintaining good relationship (rapport) with the learners', 18% of the teachers had limited or no skills, three per cent was undecided, while 79% had moderate to adequate skills. Maintaining good relationship between teachers and pupils in an inclusive class is important as it fosters more interaction and mutual understanding between pupils and teachers. On the other hand, on 'using verbal and non-verbal communication techniques' (item 19), 24% of the teachers had limited or no skills, while 76% had moderate to adequate skills. Similarly, on item 20 'conducting self-evaluation teaching', 18% of the teachers claimed having limited or no skills, three percent was undecided, while 79% assessed their skills as moderate or adequate.

These results show that most regular primary school teachers consider their skills to use verbal and non-verbal communication techniques adequate and essential in inclusive classroom setting. The results also show that most teachers are experienced and rate their skills in 'conducting self-evaluation of teaching' as adequate. For example, on the question 'generally how would you rate your knowledge and skills for teaching pupils with disabilities?' The majority (57%) considered their knowledge and skills as excellent or good, slightly less than a quarter (24%) reporting having fair knowledge and skills, while only 19% rated theirs as insufficient (Table 6). Yet services to pupils with LD leave a lot to be desired, suggesting that teachers could be giving socially disable answers.

1.1.2 CONCLUSION

Exploring teachers' awareness of the presence of pupils with learning disabilities in their classrooms, the study revealed that 15% of pupils in regular classrooms had learning disability characteristics. Unfortunately, classroom teachers had little awareness. As a result, these students constantly endure stereotypes and 'name calling' such as "impossible", "problem" or "dull" learners. Often than not, they have been subjected to physical punishment in attempts to manage symptoms manifesting their learning disabilities such as hyperactivity, short attention span, and inability to perform class appropriate literacy or numeracy-related activities.

The study also found that the methods teachers use in identifying pupils with disabilities (observing their physical appearance, reports from parents, poor academic progress, etc.) could not accurately and effectively identify pupils with learning disabilities. Given a varied range of hidden learning disability characteristics that are not easily identifiable without special diagnostic or screening instruments. It is therefore, recommended that the schools should carry out proper screening and placement methods. The results show further those teachers' labeling of pupils with disabilities as pupils with problems due to their poor performance tends to isolate rather than including the pupils.

It is obvious from these findings that, while there are pupils with disabilities of different categories in regular schools, the resources and skills with which to adequately instruct pupils with SNE are generally lacking. Although teachers claim having varied knowledge and skills on instructional management of pupils with disabilities, the general assessment has revealed that social desirability may have prompted them to over-state their knowledge and skills regarding instruction to pupils with disabilities. These doubts are supported by their responses to several items on instruction of SNE pupils falling within the range of limited to no knowledge and skills. Their disclosure that most of them have never attended any in-service training on inclusive education also corroborates these doubts.

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Notes

Note 1. This is an example.

Note 2. This is an example for note 2

Table 1: Number of Girls and Boys showing characteristics of Learning Difficulties

Subscale screened	N= Girls	%	N= Boys	%	Total N	N%
Talking/ Listening	22	41	32	59	54	54
Reading	24	44	30	56	54	54
Writing	24	41	35	59	59	59
Mathematics	19	49	20	51	39	39
Behaviour	18	53	16	47	34	34

Source: Kafonogo's field survey data, 2012

Table 2: LD characteristics demonstrated by Pupils

LDCO %	Girls	Boys	Total	% Distribution
Below 50	43	40	83	83
Above 50	7	10	17	17
Total	50	50	100	100

LDCO =Learning Difficulty Characteristics Observed

Source: Kafonogo's field survey data, 2012

Table 3: Interview findings

	Interview Question	Head teachers' responses	Class/subject Teachers' responses
1	Do you have any pupils with disabilities in your school/Classroom?	Yes = 8(100%) No = 0 (0%)	Yes= 18(82%0 No = 4(18%)
2	What types of disabilities are found in your school or class?	Physical disabilities Mental retardation, Visual Impairment and epilepsy	Physical disabilities, Mental retardation, epilepsy, low vision
3	How do you identify the pupils with disabilities in your school/class?	By physical appearance, They show abnormal behaviors, reports from the medical officers or parents.	Physical appearance, behavior, learning abilities (reading and writing).
4	How does the disability affect the pupils' learning?	They are psychologically affected. They do not do well in school subjects compared to others.	Pupils with disabilities tend to be isolated by their peer group members
5	Do you have any knowledge about learning disabilities?	Yes = 0(0%) No = 8(100%)	Yes = 0(0%) No = 22(100%)
6	How do you help the pupils with disabilities?	They get very little help like remedial teaching, some teachers punish them.	They have been asked to repeat but with no any achievement
7	What challenges/problems do you face when handling an inclusive class?	Lack of special training Lack of teaching resources	More time is required
8	How do you solve the challenges / problems?	Not much. The government should train enough teachers and allocate fund to improve learning environment for these learners.	Remedial teaching is used where possible.

Source**:** Kafonogo's field survey data, 2012

Table 4: Ordinary teachers' knowledge of appropriate instruction for pupils with disabilities

Item		No knowledge	Limited Knowledge	Undecided	Moderate Knowledge	Adequate Knowledge	Total	Mean Value
1	A	01	14	08	40	37	100	3.98
	B	01	20	07	30	40	100	3.92
2		15	07	07	29	42	100	3.76
3	A	15	07	10	37	31	100	3.62
	B	13	05	10	33	39	100	3.80
	C	13	05	10	36	36	100	3.77
4	A	12	06	07	25	50	100	3.95
	B	12	06	07	31	44	100	3.89
	C	12	05	07	40	36	100	3.83
5	A	13	07	07	23	50	100	3.90
	B	12	09	10	21	48	100	3.84

Mean value: on 5 scales
Source: Kafonogo's field survey data, 2012.

Table 5: Ordinary teachers' skills for instruction for pupils with disabilities

Item		No skill	Limited Skills	Undecided	Moderate skills	Adequate skills	N %	Mean Value
6		12	09	16	47	16	100	3.46
7	A	12	07	10	40	31	100	3.71
	B	12	05	08	40	35	100	3.81
	C	12	06	06	38	38	100	3.84
8		12	05	04	32	47	100	3.97
9		13	04	06	22	55	100	4.02
10		12	04	06	29	49	100	3.99
11		12	04	01	32	51	100	4.06
12	A	12	04	05	34	45	100	3.96
	B	12	04	02	38	44	100	3.98
	C	12	04	03	27	54	100	4.07
13	A	13	02	10	36	39	100	3.86
	B	12	03	04	41	40	100	3.94
	C	12	04	05	39	40	100	3.91
14	A	12	03	04	40	41	100	3.95
	B	13	03	04	43	37	100	3.88
15		13	06	03	39	39	100	3.85
16		13	04	02	30	51	100	4.02
17		12	06	04	25	53	100	4.01
18		12	06	03	24	55	100	4.04
19		14	05	05	36	40	100	3.83
20		13	05	03	24	55	100	4.03

Mean value: 5 scale
Source: Kafonogo's field survey data, 2012

Table 6: Teachers' rating of their knowledge and skills for teaching pupils with disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	16	16.0	16.0	16.0
Good	41	41.0	41.0	57.0
Fair	24	24.0	24.0	81.0
Insufficient	19	19.0	19.0	100.0
Total	100	100.0	100.0	

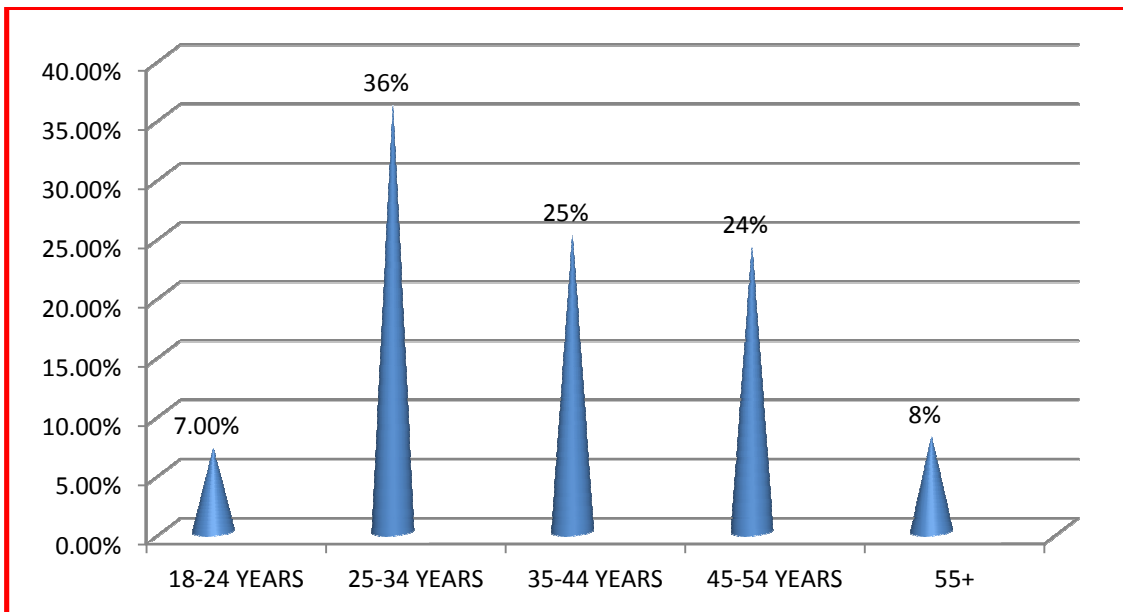Source: Kafonogo's field survey data, 2012

Figure 1: Age of Participants
Source: Kafonogo's field survey data, 2012

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