

Transiting From Units to Inclusive Education: Implication on Intellectual Disability Pupils' Skills Development; Case Study at Dodoma City

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ABSTRACT

The study explored of the transiting the pupils with intellectual disability from units to inclusive education in Dodoma city council, Tanzania. A field study research design was used to achieve the study objective. The sample of this study was purposively selected from thirty-six (36) primary schools. Created eight (8) participants which involved six (6) participants were special teachers in two units' class means three 3 in Chinangali unit and others Mlezi unit, and two (2) participant were school heads in Chinangali and Mlezi an inclusive school. The study adopted a descriptive survey design where by qualitative approach used. Interview and observation were used to collect data. The findings revealed that high enrollment rate of children with intellectual disability in units, the teachers-pupil's ratio insufficient, inadequate teaching and learning materials, and learning environment is not conducive. Therefore, it is recommended that special teachers, curriculum develop and addition building classes.

Keywords: transiting, inclusive education, intellectual disability and development skills,

Introduction

Everyone has the right to education. This right is protected in the convention on the right of the child (1989) and the convention on the right of person with disabilities (2008). Education plays a critical in the socio-economic development of a country in order to improve human capabilities. All nations over the world make an effort to ensure equal opportunities to their citizens (WHO, 2011).

Inclusive Education (IE) refers to the philosophy of ensuring that schools, centers of learning and educational systems are open to all children. This will enable the learners to be included in all aspects of school-life. IE also means identifying, reducing or removing barriers within and around the school that may hinder learning. For this to happen, teachers, schools and systems need to modify the physical and social environment so that they can fully accommodate the diversity of learning needs that pupils may have (Kenya Institute of Special Education, 2002).

A major aim of inclusive education is a social and academic participation of all students. Inclusive education introduced by various declarations in the world such as Salamanca statement (1994) states that is the foundation of the modern inclusive education movement that extends to the most recent 2006 United Nations Convention on the Right of Person with Disabilities (UNCRPD) (United Nations 2016). The Dakar Framework (2000) proclaimed the right of the child to full primary education. The Jomtien world Declarations in the education for All (EFA) 1990 followed by the Dakar Framework (2000). Universal Declarations on the Right of Education to individuals, in Article 26(54) of the Universal Declaration of

Human Rights 1948, demands that every person has a right to education (United Nations [UN], 2015). Education should be free, at least in the elementary and fundamental stages. On top of that, Ainscow, Dyson, Goldrick and West (2011) emphasize that every human being has the right to get quality and equitable basic education in spite of one's intellectual, physical, emotional, and linguistic or any other. Accordig Mapunda *et al*, (2017) explained the system of education for children with special educational needs (SEN) in Tanzania, states that they are three systems such as: special schools integrate units and inclusive education. On the other hand, the ministry of education and vocational training (MoEST) (2016) defines special school, integrate schools and inclusive education as follows: special schools are those schools which provide education to only one category of children with special learning needs, integrated units are units for children with special learning needs which are attached to regular schools, and inclusive school are regular schools which cater for learners with special learning needs in a regular inclusive classroom where such learners are assisted by the specialized teachers. MoEST (2016) further reveals that, Tanzania has been running educational services for learners with SEN through special schools, integrated units and inclusive schools for the following categories of learners with disabilities.

The statistics showed that intellectual impairment have 160 special schools/units (5 special schools, 155 units); deaf or children with hearing impaired who have 49 special schools/units (that is, 11 special school, 38 units); visual impaired have 37 special school/units (3 special schools, 34 units); physical impairment have 8 special schools/units (2 special schools, 6 units); those with deafness-blindness have 8 special schools; lastly those with autism have 8 units. It should be noted that the data on schools/units provided above shown higher-enrollment pupils with SEN in units. All those they right to get education (MoEST, 2016)

Conceptualization of intellectual disability

According to American Psychiatric Association (APA, 2013) defined Intellectual Disability (ID) is a significant sub average intellectual functioning that occurs during developmental period (before 18 years) and exists concurrently with deficit in two or more adaptive behavior such as conceptual skills, social skills and practice skills (Ke & Liu, 2012). Intellectual functioning measured by use intelligence quotient (IQ) which falls below 70 IQ, and adaptive behavior at looks what a child can do compare with other children of his or her age. For instance conceptual skills consist of language and literacy, time and number concept and self-direction; social kills include interpersonal skills, social responsibility, self-esteem, ability to follow or obey rules and law; practical skills contain activities of daily living occupational skills, travel or transportation , health care, use of money, use of telephone and security (Shree & Shukla,2016). Intellectual disability classified into four categories mild, moderate, sever and profound. Mild IQ is between 70 and 55 and moderate ID is characteristic of IQ between 55 and 40 are educable. Children in these degrees exhibit delayed developmental milestone during their early lives, but they need support from others. Severe IQ between 40 and 25 whereas profound IQ below 25 (Gargiulo, 2012, & APA, 2013)

Main objectives of the study

The main objective of the study was to transit from units to inclusive education: implication on intellectual disability pupils' skills development

Specific Objectives

This study was guided by the following specific objectives:

1. To identify the number pupils with intellectual disability in unit classes
2. To examine the characteristic of pupils with intellectual disability
3. To identify major skills taught to pupils with intellectual disability in unit classes
4. To investigate the teaching methods used to teach pupils with ID in unit class.

Teaching curriculum

In both units the study revealed that there is no special teaching curriculum for teaching ID pupils. Teachers adopt normal teaching curriculum for primary schools to teach ID pupils. Since there is no specified teaching curriculum for ID pupils, there is a challenge in teaching and learning materials, the respondents lamented that teaching and learning materials is one of the biggest problems in assisting pupils in unit classes to pass unit assessment to primary. Most of the required facilitating material are inadequate and other material are completely not availed examples of materials which are inadequately available in units are; books and clock face (these are completely not available) the books which are used are special for norm pre-primary.

Number of teachers and their qualifications

In the two visited units there were 6 teachers with special skills in teaching ID pupils. Three (3) teachers were in Chinangali primary school and three (3) teachers were in Mlezi primary school.

Method of teaching

It is recommended that one pupil one teacher approach is suitable to teach pupils with ID (Individualized Education Planning (IEP), the approach seem not applicable to these two schools due to high enrollment rate. The pilot study revealed that teachers from the two units opted to other teaching methods apart from the proposed one hence they use actual performance, the use of real objects and repetition that seem helpful to facilitate understanding to big classes.

Assessment

The pilot study revealed that pupils with ID are assessed in several stages; at the time they are enrolled at unit classes and another assessment is the one that is conducted when pupils with ID are already sorted to their classes to measure their learning abilities and mastery of subject matter. Techniques used by teachers to identify pupils with ID are based on the following criteria;

1. Observing their actions (normally their actions are not normal they perform some actions which do not relate to their age). For example, the 7-year-old child performs an action which is required to be done by a 3-year child.
2. Interviewing them (diagnostic assessment). Through this assessment, the assessor (specialist teacher in ID) pays attention on the responses the pupils give. By these responses it will entail the mental ability of the child.
3. Documentation
 - Use of Medical assessment cards; thing which are considered here are physical examination and personal history
 - Use of history sheet from parents and guardians language deficit (they are unable to pronounce world, construction ungrammatical utterances etc).

For the pupil with ID to qualify to join primary education he or she is required to pass level three (III) assessment test. The duration for pupil with ID in unit classes is three year that means the pupil has to go through level one (I) to level three (III) however, this duration is not limited due to the fact that pupils who transit to the next level depend on the way they perform in previous level. The pilot study revealed that the duration in terms of age of the pupil to spend in units is from 7 to 17 year.

General characteristics of children with intellectual disability

1. They are restless
2. They have memory challenge
3. Problem in articulation
4. Abnormal movement (external locus control)
5. Physical appearance (microcephaly, and hydrocephalus)
6. Poor interpersonal skills

Skills taught to children with ID

Skills of education is a special ability that is held so that students have skills that are useful for him/ or herself as the provision of his or her life in society. It is a continuum of knowledge and skills is needed by an individual to function independently. Also skills required daily by a person to be successful in running in their life. Hendra,J et al.,2021) states that skills development as abilities for adaptive and positive behavior that enable individual to deal effectively with the demands and challenges of everyday, and also skills that has to be willing and courageous to face the problems and living naturally without feeling pressured.

The pilot study revealed that the pupils with ID are taught various skill particularly academic skills, social skills, self-services and vocation skills to help them in their life.

The response from teachers on what they teach the ID pupils in unit indicated that the following:

1. Counting, writing, reading, communication, cooperation and health.
2. Social skills (digging, eating manner, toilet service, washing clothes and dishes as well as animal husbandry).

Counting:

The study revealed that pupils have ability to count numbers from 1-100, the use of mathematical signs namely; addition sign (+), subtraction sign (-) and equal sign (=). The ID pupils who were able to count, write, and read are those in level II and III.

Writing

Pupils in unit classes are taught to write letters of alphabet and numbers by using chalk board, tracing paper, matching cards and letter cards as well as number cards.

Communication

the pupils are taught different means of communication such as asking permission to go out for toilet survives or asking something from someone, and ways of converting greetings to fellow pupils, teachers, parents are other community members and to know how to cooperate with other.

Social Skills

The Social skills that are taught to pupils with ID are those that can help them once they are out of education system to adjust well in their society such skills include, eating manner, toilet service, washing clothes and dishes, sweeping, bedding as well as animal husbandry, digging).

Students’ statistics in terms of enrollment rate and transit rate to primary school

The pilot study dealt in the statics of pupils with ID in terms of enrollment rate and transition rate to primary school in 2018 to 2020. The results revealed that there is high enrollment rate of pupil with ID in unit classes than the number of pupils who pass level III assessment test to primary schools. This can be identified in the table below;

Table 1: Students’ statistics in terms of enrollment rate and transit rate to primary school

Place	P/school name	Year	Pupils enrolled in units	Pupils transit to primary school		
				Male	Female	Total
Dodoma City	CHINANGA LI	2018	26	0	1	1
		2019	28	0	1	1
		2020	31	0	1	1
	MLEZI	2018	35	2	4	6
		2019	42	1	2	3
		2020	54	1	2	3

Source: Field Data

Transition to primary

Transition from unit to primary education is determined pass rates at level II and III of the unit class. For example in 2020 a total of 54 pupils with ID were enrolled in a unit class at Mlezi primary school in Dodoma out of them only three (3) pupils transferred to primary school. In Chinangali primary enrolment was 31 pupils in the unit out of them only one (1) managed to transfer to primary school

Methodology and procedures(qualitative)

Data from the schools where piloting were conducted were collected through three research instruments; the interview guide, questionnaire and observation checklist.

Procedures for carrying out the study

The researcher followed the following procedures when conducting pilot study; firstly the researcher was given an introduction letter from internal supervisor to introduce the researcher to other authorities particularly in the schools where pilot study were conducted. The researcher after reporting to the field submitted the letter of introduction to the heads of schools and got permission to administer the exercise of data collection. Data were collected from respondents through attempting questions from both

questionnaires and interview guides, documentary review were used to complement the information obtained from other tools. Data collected were thematically analyzed and insight was made.

The respondents of the study and the focus group

The respondents of the pilot study were special needs professional teachers teach ID pupils and the head teachers from those units where ID pupils are enrolled. The focus group of the study was the ID pupils. The sample size of were 8 respondents whereas 3 special teacher from both two units to make a total of 6 special teachers two head teacher. The reason for selecting these respondents is there skills and knowledge they have on ID pupils therefore, the researcher could collect reliable and valid data.

Data analysis methods

Data collected from pilot study were both analyzed qualitatively and quantitatively. In case of qualitative data, thematic data analysis method was derived from open ended question and interviews guide whereas the quantitative data was derived from closed ended question and statistically analyzed such as frequency distribution and percentage.

Results/Findings

The main findings from the study

The main findings of the pilot study revealed that, there is high enrollment rate of children with ID in the units while the number of specialist teachers is very small hence affecting the learning of those pupils since there is high teacher-pupil ratio. In the two visited schools there were only 6 teachers trained to teach pupils with ID while the number of pupils is very high for example 54 pupils to be serviced by three teachers.

Also, the pilot study revealed that there is inadequate teaching and learning materials, the respondents lamented that teaching and learning materials is one of the biggest problems in assisting pupils in unit classes to pass unit assessment to primary school. Most of the required facilitating material are inadequate and other material are completely not availed examples of materials which are inadequately available in units are; books and clock face (these are completely not available) the books which are used are special for norm pre-primary.

The findings tell the researcher about math skills for ID children that it so difficult for those special pupils to understand mathematics skills as their learning environment is not conducive. For example, learning in a congestion classroom is risk in learning Children sitting on the floor while listening to the teacher is something very difficult or having fewer desks for pupils also makes children not attentive to their teachers in regard to their impairment.

Also shortage of teaching and learning materials tells the researcher that there is a possibility for ID pupils to miss a lot about mathematics skills. Not only that but also, teachers are using a lot efforts to make sure the pupils are getting the skills a thing which makes teacher to see teaching special pupils as a burden. One of the responses from the interviewee was as follows;

We special teachers face a lot of challenges in teaching pupils with intellectual disabilities because were very few if compared to the enrolled pupils as per standard signal pupil approach is the most recommended but we fail to implement the approach because of fewer number of teachers with special skills. Moreover, we run shortage of teaching and learning materials that is why most of the enrolled pupils in unit classes

spend up to 10 years without managing to pass unit exam that allows them to transit to primary schools [source: special teacher B].

Furthermore, regarding to teaching strategies the researcher see that using other teaching strategies apart from the suggested math teaching strategies to ID pupils which is one pupil one teacher approach damages the understanding of the pupils.

Challenges faced by children with ID in learning mathematics skills in the special schools

Pupils with ID face a lot of challenges ones they are enrolled in unit classes. From the pilot study the research findings revealed that, has problems recording calculations on paper (difficulty writing the digits, difficulty remembering the procedures) Counting difficulties lead to subtraction errors ($9 - 6 =$). Also ID pupils face with; they lack of sensorial memory, low level of concentration and attention; most of them have health related problem like; neuromotor impairment, cerebral palsy. Also they have poor social relationship with others, poor attendance. Moreover, pupils with ID once they reach to school, they need highly care and protection from being truants, to supervise them because of striking behavior they have, for being restless that they cannot settle in one area, they frequently feel hungry, they are coward by nature (this is because of the frequent being bitten when they are at their home place, so they imagine the same situation even in school).

Recommendations of the pilot study

1. The government try to identify all students with special needs in primary schools to assist them according to their needs
2. Government put more efforts to train and employ adequate number of special education teachers in inclusive primary schools to support pupils with intellectual disability.
3. Government should provide mathematic kit, radio cassettes and projector which are vital instructional materials in primary schools to enhance effective teaching and learning mathematics.

The suggestions for mitigating challenges children face in learning mathematics

Teachers from the visited units suggested the government and other educational stakeholders to build classrooms which are friendly to pupils with ID, for example, building self-contained classrooms for easy management of children with truancy habits. Apart from building friendly classroom for easy management of ID pupils, the government should also ensure that all the required materials for assisting teaching and learning mathematics skills to ID pupils are made available to those units. Furthermore, the teachers suggested training and employing more special teachers so that they can add power in teaching effectively and efficiently mathematics skills and other skills like reading, writing and social skills.

The gap identified with the help of pilot study

From the pilot study the researcher identified that there is little attention to pupils with ID by the government and other educational stakeholders regarding their schooling life particularly in learning environment. Basing on the pilot study, there is a significantly poor learning environment, teaching methods, teaching and learning materials as well as security to those ID pupils. It therefore, these reason pulled attention to the researcher to conduct this study so that a solution about mathematics learning challenges to pupils with ID a solved.

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