

# Who decides what our children learn?

A research report on the relationship between curriculum quality and education quality



March 2011



## Acknowledgements

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## Chapter One:

# Background and Methodological Approach

### 1. Introduction

For the past two decades there has been a steady flow of warnings from parents, the government, the private sector and the civil society about the 'falling' quality of education in Tanzania. Two major benchmarks are used to assess the level of quality in education. Firstly, educators look at the performance of learners in basic skills such as writing, reading and basic arithmetic (adding and subtracting). Secondly, educators look at the level at which learners are able to acquire basic life skills related to the preparedness of learners to fit into the world of work. Sometimes these two benchmarks are categorised as the academic and vocational dimensions of education outcomes. The academic component focuses on intellectual pursuit as reflected in the high standards of thinking, arguing, enquiring, experimenting and speculating (Pring, 2004). In this case, many educators argue that a quality education programme should enable learners to balance the two dimensions by facilitating the acquisition of academic competencies, such as critical thinking, problem solving and argumentation, and preparing the learners to be able to fit into the world of work through the provision of vocational competencies such as communication skills and job-specific skills.

It is more common to assess the quality of education using the benchmark related to the performance of learners. In this case, educators and other education stakeholders look at the performance of learners in various exams to judge the quality of education they have received. Using this benchmark, for example, in recent years the performance of candidates in national examination has been declining, with an implication that the quality of education has been declining as well. For example, the proportion of students passing the primary school leaving examinations has been declining steadily since 2005. For instance, the pass rate decreased from 70.5 percent in 2006 to 54.2 percent in 2007, 52.7 percent in 2008 and to 49.4 percent in 2009 (United republic of Tanzania [URT], 2010).

The analysis of the national secondary education examination results also shows a declining trend. For example, for the past five years, between 2005 and 2009, the percentage of candidates scoring at Divisions I and II in the national Form IV examinations has decreased from 12 percent in 2005 to 6 percent in 2009 (see Figure 1). Indeed, as Figure 1 shows, a majority of candidates (more than 50%) in secondary school national examinations have been scoring Division IV, which is relatively a fail grade in Tanzanian standards because candidates scoring at this grade generally have difficulties obtaining admission into tertiary and higher education institutions.

Clearly, therefore, judging on the basis of performance of learners in examinations, the quality of education at both primary and secondary education levels has been deteriorating. It is also notable that the quality of learning of students in schools is quite questionable. A recent study revealed that about 50 percent of children completing primary schools cannot read a passage in English and/or Kiswahili, and the situation is particularly worse in rural areas (Uwezo, 2010). The quality of education offered in our schools therefore clearly calls for a diagnosis of the factors that have led to the current trend so as to be able to devise informed remedial measures.

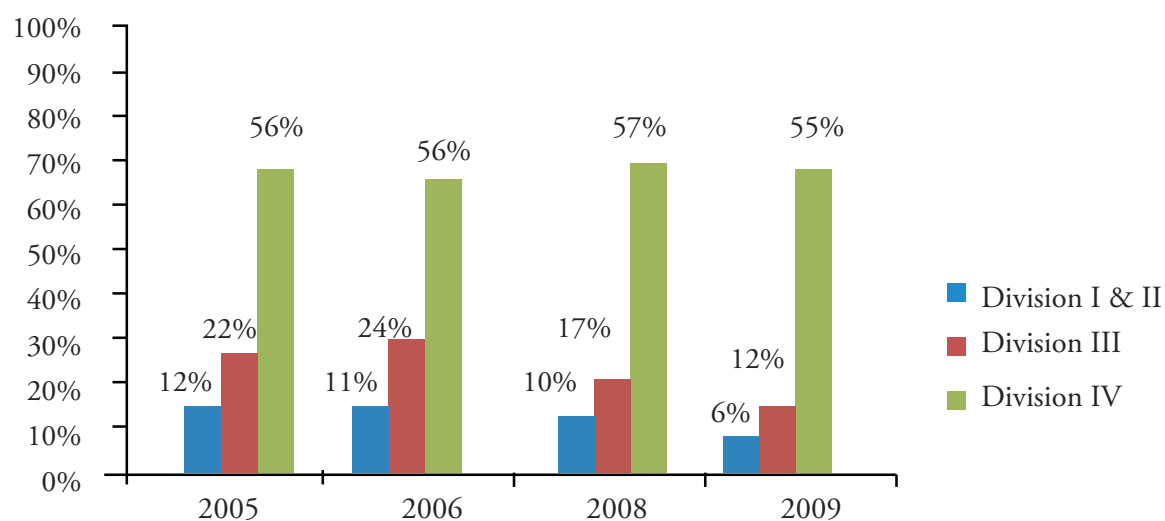


Figure 1: Pass rates of secondary school national examinations 2005-2009

Several factors have been identified that affect the quality of education. A major focus has been on the contextual factors such as the availability of teaching and learning resources (Chonjo, 1994) and the effectiveness and efficiency of school management (Mosha, 1988). The quality of education has also been associated with teacher supply and competency, as well as educational leadership quality (Oduro, Dachi & Fertig, 2008). Oduro et al. have argued that education reforms in Africa have mainly focused on expanding access to education with little attention on the quality of education offered. Thus, whilst acknowledging and appreciating the notable increase in student enrolment in secondary education in recent years, it is important to ask hard questions as to whether all children enrolled in schools are learning.

Though a number of factors have been identified and examined in relation to the quality of education at primary and secondary education levels, there has been a paucity of studies that have examined how the quality of curriculum affects the delivery of quality education. Against this backdrop, HakiElimu, an organisation that works to realize equity, quality, human rights and democracy in education by facilitating communities to transform schools and influence policy, commissioned a study to examine the relationship between curriculum quality and the quality of education in Tanzania. This report documents the findings of the study.

### 1.1 Purpose and objectives of the study

The main purpose of the study was to examine how the Tanzanian school curriculum affects the quality of education. Specifically the study addressed the following four objectives:

- i) To assess the quality of primary and secondary school curriculum in relation to the provision of quality education
- ii) To assess the impact of a multiple or single textbook system on the provision of quality education
- iii) To assess the level of community participation in assessing and evaluating curriculum quality
- iv) To establish stakeholders' opinions on how curriculum can be improved in order to provide quality education to our students

## 1.2 What constitutes curriculum and how does it affect learning?

Many writers acknowledge the complexity involved in defining the term curriculum. From its original Latin word, curriculum literally means 'to run a course.' On the basis of its literal meaning, Oliva (1997, p 4) defines curriculum with respect to the following 12 aspects:

- That which is taught in schools
- A set of subjects
- Content
- A programme of studies
- A set of materials
- A sequence of courses
- A set of performance objectives
- A course of study
- Everything that goes on within the school, including extra-class activities, guidance and interpersonal relationships
- Everything that is planned by school personnel
- A series of experiences undergone by learners in a school
- That which an individual learner experiences as a result of schooling

In view of Oliva's definition, curriculum can be seen as a set of content that learners are expected to learn and how this content is organised. It is a sequence of learning opportunities provided to students in their study of specific content (Egan, 2003). Clearly, therefore, curriculum and learning are closely related, with the implication that poor curriculum content can adversely affect the delivery of quality education. Defined as such, curriculum is invisible as we cannot really see the 'sequence of learning opportunities.' We can only see the artefacts and effects of curriculum rather than the curriculum itself. Thus, curriculum exists in many forms that we are able to see and which are taken as indicators of the intentions and implementations of curriculum. These include for example:

- Plans and intentions that one wishes or expects students to learn that are contained in official education documents
- Patterns of classroom activities that are meant to implement those plans and intentions
- Textbooks and other learning resources that support classroom learning opportunities
- Lesson plans that specify the learning content and time

Thus, in analysing curriculum, it is important to choose the artefacts and effects that one wishes to reflect on. This study analysed the following three aspects of curriculum:

- i) Teachers' and students' teaching and learning experiences respectively
- ii) Content standards as reflected in the subject syllabi and textbooks
- iii) Policy makers and other education stakeholders' views and opinion about the effectiveness of our curriculum in enhancing quality learning

### 1.3 Methodological approach

The methodological approach adopted in this study was mixed methods in which both quantitative and qualitative methods of data collection were employed. It was important to adopt this approach in order to capture a wide spectrum of participants both quantitatively and qualitatively. Whilst the quantitative approach was necessitated by the need to collect data from participants as diverse and as large in number as possible, the qualitative approach was necessary to complement quantitative data by exploring participants' feelings and meanings associated with curriculum quality and education in Tanzania.

Questionnaires were used to collect data related to teachers' and students' assessment of the curriculum implementation in their schools. Focus group discussions were employed to examine their views and opinion about quality of curriculum and its effects in delivering quality education. Focus group discussions were also conducted with parents to assess their opinion and views about their involvement in curriculum development and implementation. Interviews were conducted with education policy makers at regional and district levels which also assessed their views and opinions about the quality of curriculum and how it affects the quality of education.

Education policy statements and content standards as reflected in the subject syllabi and textbooks were subjected to content analysis to assess their relation to and possible effects and consequences on the quality of education offered as reflected in the learning competencies displayed by learners.

Participants for this study were recruited from Arusha, Iringa, Tanga, Mwanza, Tabora and Shinyanga regions. One district was randomly selected from each of these regions, namely: Monduli (Arusha), Mufindi (Iringa), Pangani (Tanga), Misungwi (Mwanza), Uyui (Tabora) and Bukombe (Shinyanga). In each district, four schools were selected—two primary schools and two secondary schools. The schools were selected on the basis of their performances in the National Primary School Leaving Examinations and Secondary School Examinations, with one best performing primary and secondary school and one poorest performing primary and secondary school selected from each district.

In each school, students were selected from Standards Five and Six for primary schools and Forms Three and Four for secondary schools. Stratified and simple random sampling was used to pick students who completed the questionnaire in which boys and girls were selected separately. From each group, that is boys and girls, students were asked to count 1 and 2, in which students who counted number 2 were picked from the boys' stratum and those who counted number 1 were picked from the girls' stratum. Students who completed the questionnaire were requested to volunteer to take part in the focus group discussions and a maximum of nine of them were eventually selected for this purpose.

All teachers available at schools on the day of the survey were requested to complete the questionnaire as well as to participate in the focus group discussions.

Quantitative data were analysed using the SPSS version 16.0 in which descriptive statistics were used to capture participants' demographics and their learning experiences in curriculum implementation.



Qualitative data were recorded verbatim. Focus group discussions and interview proceedings were transcribed, printed out and read through a couple of times to get a familiarisation until patterns started to emerge. Themes were then identified from the transcriptions, which formed the unit of analysis. The themes and the descriptions with the accompanying quotes were used to collaborate and elaborate the results of the questionnaire.

Clearance to conduct this research was obtained from the University of Dar es Salaam Directorate of Research. Permission to conduct the study in schools was issued by the respective Regional and District Administrative Secretaries. All ethical guidelines regarding research with schools in Tanzania was adhered to, including ensuring informed consent for participation, confidentiality and privacy of information obtained from participants. Consent for students' participation was sought from both themselves and their teachers.

## Chapter Two

### Research Findings

#### 2.1 Introduction

This research comprised two major parts. The first part examined the views of teachers, students and other stakeholders regarding the quality of curriculum content and implementation. This was done both quantitatively and qualitatively. The second part assessed the quality of the curriculum materials, particularly textbooks used in teaching various subjects. The results for these two parts are presented in order below.

#### 2.2 Teachers' and students' views about the quality of curriculum

##### 2.2.1 Introduction

Teachers and students completed a three-part questionnaire assessing their views about the quality of curriculum as it relates to the quality of education delivered to students. Two hundred and thirty-three teachers and 1,325 students completed the questionnaire. Of the teachers who completed the questionnaire, 50.4 percent were male and 49.6 were female, whereas 54.2 percent of students who completed the questionnaire were female. The mean age for teachers was 34.4 (standard deviation = 2.61) and for students was 15 (standard deviation = 10.31).

Apart from completing questionnaires, teachers, students, parents, community leaders and other education stakeholders also took part in focus group discussions and interviews, which were aimed at complementing the information gathered quantitatively.

##### 2.2.2 Teachers' views about the quality of curriculum

###### 2.2.2.1 *Teachers' understanding about key national policy frameworks informing the educational curriculum*

In order to assess their views about the quality of curriculum, teachers were asked three categories of questions. Questions in the first category assessed teachers' understanding of the national key policies from which educational objectives are based. Ideally, curriculum pronouncements ought to be guided by country's social, economic and political directions; as such, it is essential that teachers understand some of the policies. In Tanzania, there are two major policy directions, namely the Tanzania Vision 2025 and the National Strategy for Growth and Reduction of Poverty (NSGRP), with the implication that educational policy and curriculum pronouncements should be based on, among others, these policy documents. Teachers were asked to indicate the extent to which they understand the two national policy frameworks. Only 47 percent of teachers had heard about the Tanzania Vision 2025 document, and of these, only 34.4 percent reported that they understand this vision. The NSGRP, popularly known by its Kiswahili abbreviation as MKUKUTA, was quite popular among teachers; 75 percent of teachers had heard about MKUKUTA and 72.2 percent of teachers reported that they either 'very well understand' or 'understand' the MKUKUTA (see Figure 2).

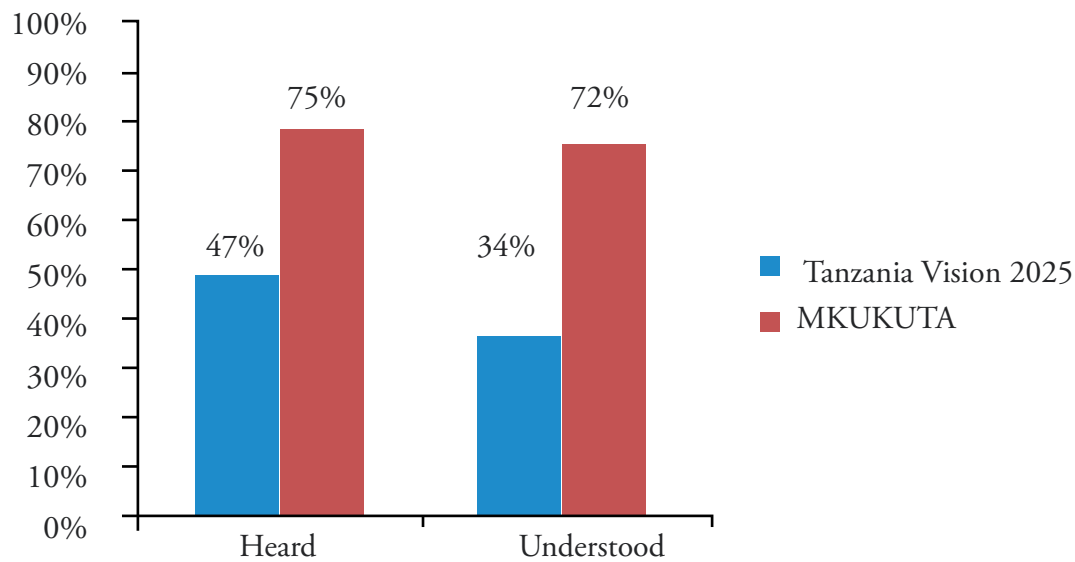


Figure 2: Percentage of teachers reporting that they understand the Tanzania Vision 2025 and MKUKUTA

#### ***2.2.2.2 Teachers' understanding about the Tanzanian education objectives***

It is important for teachers to understand the educational objectives which are the basis for deriving the curriculum. Against this backdrop, teachers were asked to indicate the extent to which they understand the Tanzania national educational objectives. A majority of teachers (86.8%) reported that they either understand very well (13.2%) or understand (73.6%) the educational objectives of Tanzania. When asked to indicate the extent to which education stakeholders understand the national educational objectives, a majority of teachers (64.2%) thought that these stakeholders understand the national educational objectives. Furthermore, 83.9 percent of teachers reported that they learnt about the objectives of primary and secondary education at Teachers' training colleges. Thus, it is clear that a majority of teachers and other stakeholders understand the Tanzania national educational objectives (see Figure 3).

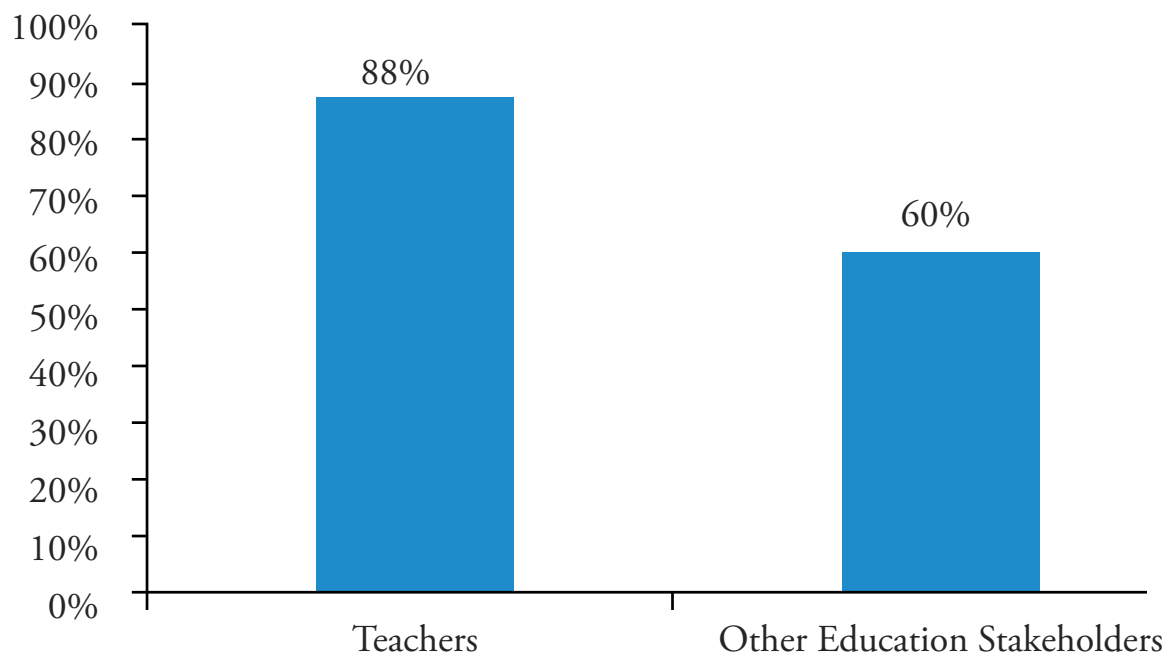


Figure 3: Percentage of teachers who report that they and other stakeholders understand the national education objectives

### 2.2.2.3 Teachers' and students' views about the effectiveness of Tanzanian education curriculum

Teachers and students were asked to indicate the extent to which the Tanzanian education curriculum was effective in producing competent, confident, responsible and skilful graduates. The results are summarised in Figure 4. As Figure 4 shows, a majority of respondents, both teachers and students, thought that the Tanzanian curriculum is not effective at producing competent graduates in various capacities. For example, only 35 percent of teachers and 26 percent of students reported that the curriculum was effective in producing confident graduates. Furthermore, only 39 percent of teachers and 26 percent of students reported that the curriculum was effective in producing responsible citizens. Only 36 percent of teachers and 28 percent of students thought that the curriculum was effective in producing effective contributors to society. Nevertheless, a significantly higher proportion of students thought that the curriculum was effective in producing skilful graduates, in which 70 percent of students reported that the curriculum was effective in producing skilful graduates.

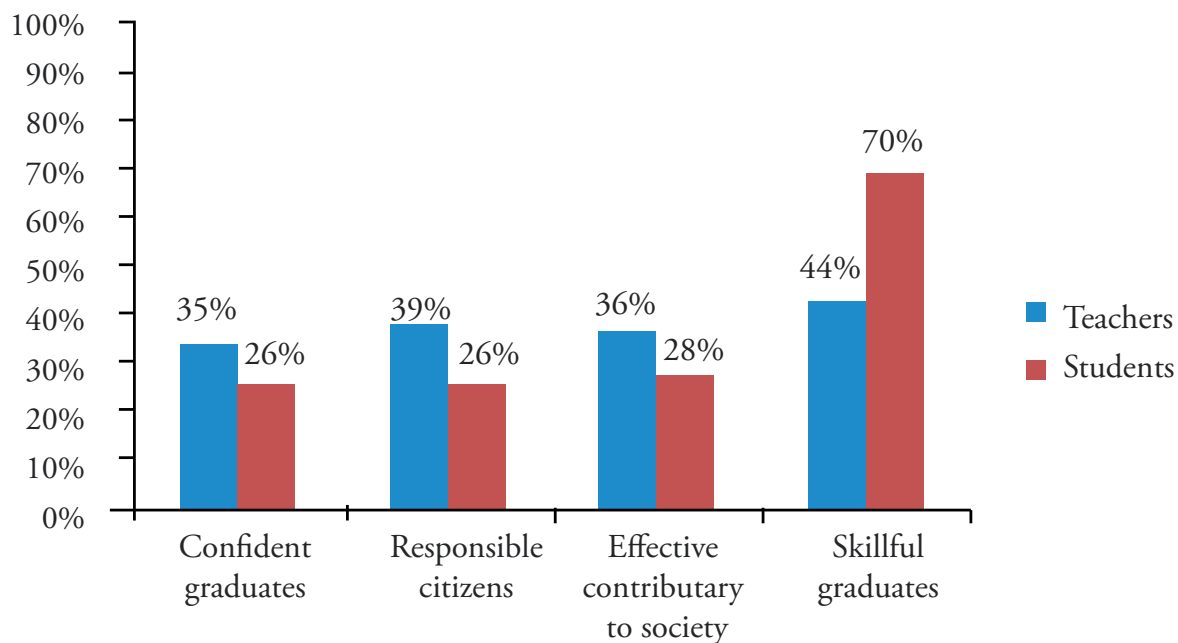


Figure 4: Percentage of teachers and students reporting that the curriculum is effective in producing confident, responsible, effective and skilful graduates.

### 2.2.3 Findings of interviews and focus group discussions on the effectiveness of the curriculum

During interviews and focus group discussions, participants' comments about the effectiveness of the curriculum closely mirrored the results of the questionnaire responses. Participants observed that the curriculum was not effective in producing self-reliant and independent graduates. They observed that education provided in the 1980s and 1990s was useful as it made a graduate capable of being self-reliant at every level of education accomplishment. They observed further that these days education was meant to enable a graduate obtain a 'white collar' job in offices. This was mainly attributed to the nature of the curriculum which tends to emphasise academic rather life skills-based education. For example, during one of the interview sessions, one of the District Education Officers observed:

*There is a great emphasis on the academic kind of education so that children can pass exams. Children are taught how to pass exams but not to be independent and self-reliant. They are not prepared for the world of work. If they fail in their exams it means their future is doomed.*

A head of school of one of the participating schools had similar views observing that learners are interested in cramming for exams, not for getting knowledge and skills that would help them in their future life. The head of school had this to say:

*A student learns what Physics is, what is Biology but nothing about how to use the concepts they learn in class in real life situation. This is very irksome indeed!*

One of the District Education Officers who participated in the interviews was critical of the curriculum content, arguing that the content was not relevant and appropriate to the needs of the society. He said:

*It is not possible for our graduates to self-employ. What is contained in the curriculum does not make sense practically. It is not at all relevant to the context of where students live.*

Students' comments were not different from those of their teachers. They observed that our education system is examination oriented with little practical use beyond the classroom context. For example, students had this to say during focus group discussions:

*...our education is not that helpful. This is because it is difficult to put into use most of what we learn in schools.*

*I don't think what I have learned will be useful when I leave school. Most young people who have completed secondary education are in the street doing nothing. The Government must do something to improve our education system so that it can be useful and relevant.*

*The current curriculum does not match with the scientific and technological development taking place in the world. How can you learn about using computers without seeing them?*

Teachers particularly raised concern with two specific issues regarding curriculum development processes in Tanzania. These are the concern that there are too many changes that have been made to the curriculum within a relatively short period of time, and that teachers and other stakeholders are not involved in making these changes. Some of the teachers' concerns are captured in their quoted remarks below.

**(i) 'Too many curriculum changes'**

There has been considerable changes in primary and secondary school curriculum in the past 10 years. This attracted mixed feelings from the stakeholders. A majority of participants criticised the hasty changes that have been undertaken. Teachers particularly criticised the Government for promulgating a curriculum that was not responsive to the needs of the people. They also criticised the tendency in recent years to change the curriculum context without consultation with key stakeholders, including teachers and students. For example, a District Education Officer had this to say regarding curriculum changes:

*I think we have been changing our curriculum so often that we confuse our teachers. Before teachers settle with a new curriculum, new changes are communicated.*

A head teacher of one of the participating primary schools also complained about the changes in curriculum, of which he said, "There is no stability in curricula because they change every day, and this confuses teachers."

**(ii) ‘Teachers are not involved in making curriculum changes’**

Curriculum making is essentially a collective process that should involve all key stakeholders in the process. More importantly, curriculum changes should reflect the needs of a particular society. However, during focus group discussions and interviews, it was clear that the curriculum making process in Tanzania has not been participatory. For example, many teachers complained that curriculum changes are simply communicated from the top, mainly by the Ministry responsible for education without proper explanation why the curriculum changes have been introduced. Additionally, participants explained that curriculum changes do not match with changes in teaching and learning resources, which makes it hard to implement the changes. Reflecting on this aspect, one of the District Education Officers, had this to say:

*When curriculum changes happen, we are not given time to understand them before implementation begins. And in many cases these changes are done without the involvement of key stakeholders. Again, textbooks and other necessary teaching and learning materials do not arrive on time when these changes are made. For example, since the changes in Standard Six curricula were made two years ago, there has been no change in textbooks and other teaching and learning materials to reflect the changes in the curriculum. So how do you expect teachers to teach, eheee? New curriculum but old books, how can this be?*

Emphasising the issue of lack of teachers’ involvement in curriculum making, another District Education Officer made the following remarks:

*The way I understand the curriculum development process, any change in curriculum should come from down rather than from top. All key stakeholders are supposed to participate in curriculum changes, and any curriculum change should begin from the classroom teacher and move up to the Ministry, but this is not usually the case.*

A head teacher of a primary school expressed similar remarks in which she said:

*...we are just implementers of curriculum changes. We don’t participate in making these changes; they are simply brought to us! Worse still, they don’t even educate us on these changes; they just tell us to implement.*

A head of one of the participating secondary schools also had the same opinion, saying that curriculum changes do not match the needs in teaching and learning resources. She observed that:

*Most of the curriculum changes that have been made do not match with the needs in teaching and learning resources. You will find similar textbooks and other materials. This is particularly the case with Science subjects.*

Another notable observation that was made by participants regarding curriculum changes was on the lack of training among teachers. Teachers observed that when curriculum changes are made, there are no training programmes that are organised for teachers to help them understand the changes they are expected to implement.

#### 2.2.2.4 Students' experiences of teaching and learning processes

The quality of curriculum is also reflected in the way students perceive their learning and teaching experiences. It is therefore important to gauge students' views about their learning and teaching experiences as part of assessing the quality of curriculum implementation. In this regard, students were provided with several questions assessing their learning and teaching experiences. These questions could be divided into three major categories, namely: teachers' competence, availability of learning materials and availability of textbooks. The results are summarised in Table 1 and Figure 6. As Table 1 shows, a majority of students were happy with the competence of their teachers in which they rated them quite highly in almost every aspect they were asked. For example, 88.1 percent of students reported that their teachers were good at explaining things in the classrooms. Sixty percent (60%) of students reported that their teachers have made the subjects they were teaching interesting and that teachers were enthusiastic about what they were teaching (see Figure 5).

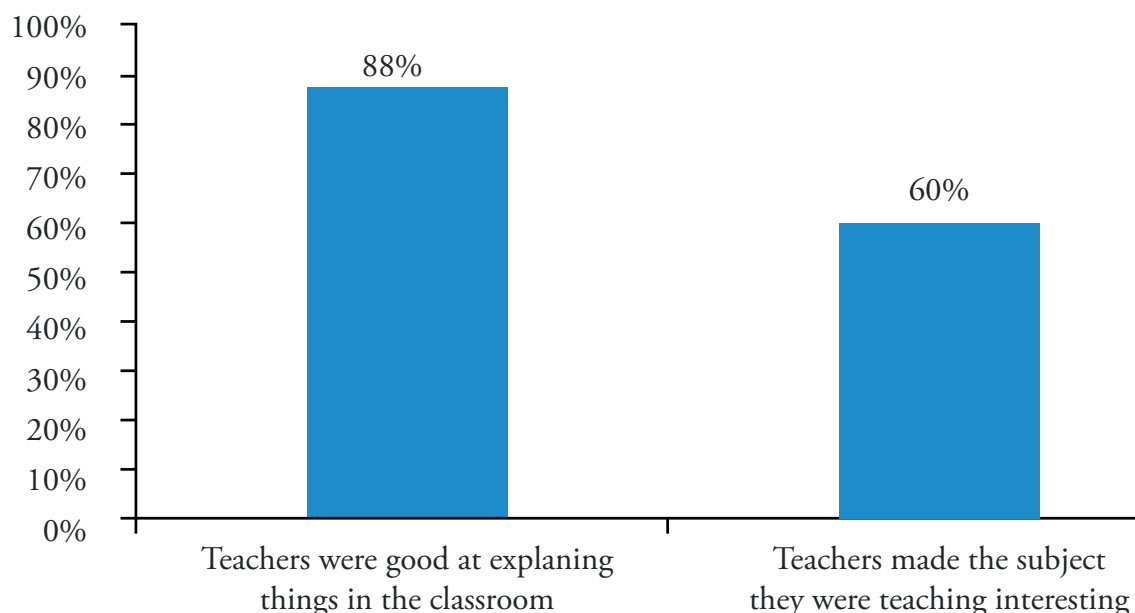


Figure 5: Students' views about their teachers' teaching

When the questions were grouped into the three categories mentioned above, on average, students were happy with their teachers' competence, but quite dissatisfied with the availability and quality teaching and learning materials. For example, only 37.3 percent and 36.4 percent of students reported that there were enough learning materials and textbooks respectively. In contrast, 70.8 percent of students reported that their teachers were effective in teaching and facilitating students to learn. But only 37.3



percent of teachers reported that there were enough learning materials; additionally, only 36.4 percent of students reported that there were enough textbooks for the subjects they were learning (see Figure 6).

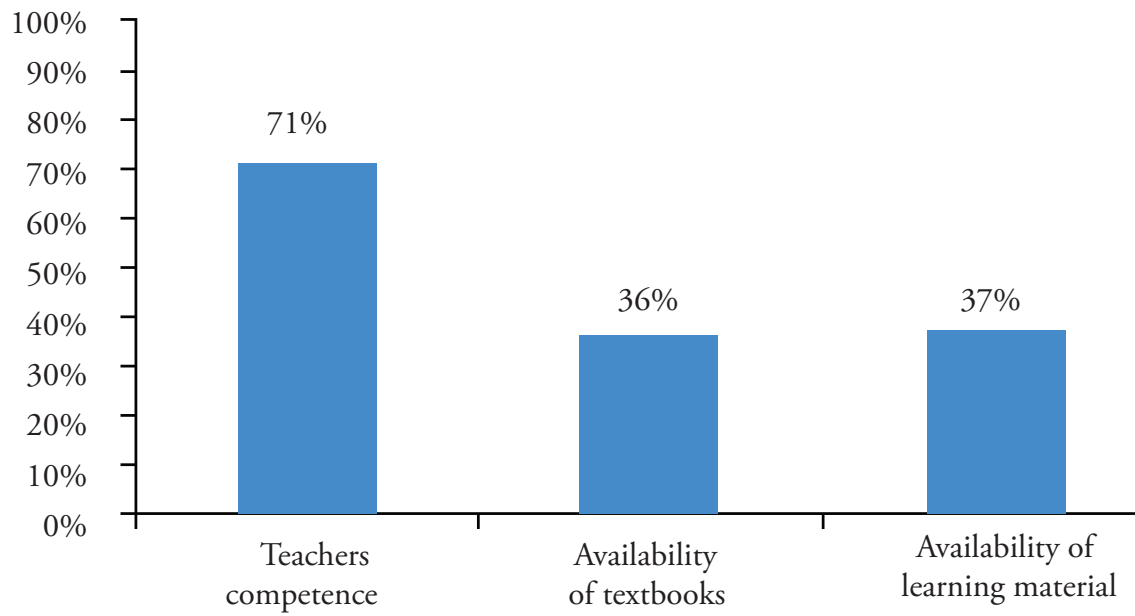


Figure 6: Percentage of students reporting that they were satisfied with teachers' competence and availability of learning resources

Table 1 Students Views about Teaching and Learning Effectiveness in their Schools

Maelezo	Namba	% Majibu				
		SD	D	Na Maoni	A	SA
My teachers are good at explaining things	1290	4.5	5.6	1.9	28.8	59.3
My teachers have made the subjects interesting	1302	14.8	17.1	8.1	27	33.1
My teachers are enthusiastic about what they are teaching	1302	12.6	13.4	14	24.6	35.4
The subjects I have learned have promoted my understanding on various academic issues	1306	3.5	6.3	3.4	27	59.8
My teachers have always been available when I am in need of them	1314	13.9	14.4	4.2	25.2	42.3
I have been doing enough assignments in the class	1314	8.6	10.2	2.4	25.1	53.7
The criteria used for evaluation have been clear in advance	1305	10.5	13.4	11.9	26.8	37.4
Marking of students assignments have been fair	1300	18.2	13.5	7.1	19.5	41.8
The time allotted for teaching the syllabus content is enough	1308	11.9	16.7	7.0	26	38.4
The subjects' matter taught are clearly understood	1300	7.3	11.8	6.1	31.1	43.8
The content of the subject matter taught is well structured and organised	1305	8.2	12.6	12	29.3	37.9
The content of the subject matter taught is important and meet my academic needs	1318	7.8	10.5	7	28.4	46.4
The content of the subject matter taught is relevant to my academic needs	1290	9	11.3	8.3	28.2	43.2
I agree with the use of one textbook for all schools	1298	26.2	14.1	11.4	16.5	31.8
I agree with the use of many different textbooks for different schools	1294	23.1	12	9	18.5	37.4
There are enough textbooks for each subject	1310	37.5	21.1	5.1	12.7	23.7
The book I use is of a required quality	1301	15.1	14.8	8.1	24.9	37.1
There are enough learning materials in our school	1314	35.4	21.1	6.2	16	21.3

Tanbihi: SD=Kutokubaliana Kabisa; D=Kutokubaliana; SA=Kukubaliana Kabisa; na A=Kukubaliana.

### 2.2.2.5 Teachers' views on the use of single or multiple textbooks

Textbooks are one of the most important inputs that determine students' achievement in many ways. Textbooks are particularly important in integrating the four learning skills in children, namely: speaking, listening, reading and writing (Moulton, 1997). One of the controversial educational issues that are being debated in Tanzania today is whether all schools should be using single similar textbooks or different schools should be free to use different textbooks depending on the availability of books in their context. The current policy for the Ministry of Education and Vocational Training is to allow schools to use different textbooks for different subjects. The books should, however, be approved by the Ministry's Education Materials Approval Committee (EMAC). Thus, though there have been concerns about the multiple textbook policy, many schools in Tanzania still use different textbooks though they implement the same curriculum. This policy practice has drawn mixed feelings from different stakeholders.

In this research, we asked teachers to comment on this practice and whether they would prefer the use of single textbooks or multiple textbooks. In response, 79.9 percent of teachers preferred the use of single similar textbooks for all schools, and only 20.5 percent of teachers preferred the current policy practice of using multiple textbooks (see Figure 7).

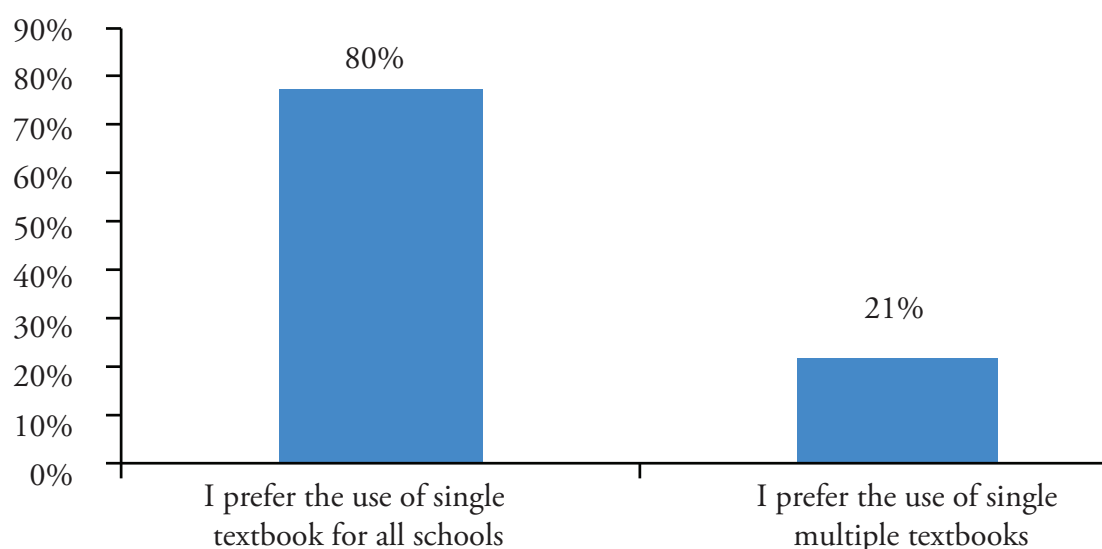


Figure 7: Teachers' views about using single or multiple textbooks

During interviews and focus group discussions, a majority of participants preferred the use of single textbooks to multiple textbooks. Those preferring the use of single textbooks observed that using similar textbooks for all schools would allow learners to learn similar content throughout the country regardless of their geographical locations. Furthermore, they recommended that textbooks should be supplied by government agencies rather than leaving the supply in the hands of private individuals. Some of the participants' remarks are illustrated in the quotes below:

*No, I don't support the use of multiple textbooks; this is not good at all. There should be single prescribed textbook for each subject to be used by all schools throughout the country.* Head Teacher, Monduli.

*I think that one textbook should be used by all students throughout the country. This is because using many textbooks will be confusing to learners and teachers and learning will not be useful. Students will learn different contents while they do the same national examinations.* Student, Misungwi.

*I strongly support the use of single textbooks for all schools, from Kilimanjaro to Coast Region. At the end of the day students do the same national examination. Using multiple textbooks may disadvantage some candidates and benefit others.* Student, Pangani.

Nevertheless, there were a few voices that supported the use of multiple textbooks for various reasons. They argued, for example, that the use of many textbooks allows flexibility and that it gives an opportunity for teachers and learners to adapt learning to their own local contexts. Additionally, they argued that using different textbooks was good in that it would provide room for students to have a broad and diverse understanding of the issues covered. For example, one secondary school student from Bukombe had this to say:

*In my view using many textbooks is good because it gives great flexibility for teachers and students to use different meanings and definitions when explaining a concept.* Secondary school student in Mufindi.

Others argued that using multiple textbooks was good as it would make learning more practically oriented because books would be written in response to specific geographical contexts. This would make learning more relevant and appropriate to learners' contexts.

### **2.3 Community involvement in curriculum development and implementation**

The importance of community participation in curriculum development and implementation cannot be overemphasised. Evidence has shown that the greater the family and community involvement in schools, the greater the students' achievements (Niemic, Sikorskim & Walberg, 1999). A good curriculum should reflect the needs and wishes of the society for which it is intended. Therefore, community and parents should be involved at the planning stage to determine the needs of the society that should be reflected in the curriculum. In this study we sought to examine the role of parents and their involvement in the curriculum development and implementation processes. This was done qualitatively through interviews and focus group discussions with parents and school committees.

Results of interviews and focus group discussions show that parents and communities in general are seldom involved in the curriculum making process. This was largely expected given the fact that even teachers who are the implementers of the curriculum complained that they are not appropriately involved in the development and implementation of curriculum. A plurality of parents and other community members, though aware of the subjects their children were taking at school, did not seem to be informed of what exactly their children were learning in schools.

It was evident also that a majority of parents were unable to assist their children in their learning processes because they thought that they did not have the requisite knowledge and skills to be able to do so effectively. This was particularly the case with parents who had children in secondary schools, in which they observed that they could not help their children due to language barriers. Parents complained that most subjects at secondary school were conducted in English, a language in which they were not proficient.

Some of the parents' and community leaders' comments regarding their involvement in curriculum development and implementation processes are illustrated below.

*...for sure we don't know much about what our children are learning. They go to school, they come with books, but how can I know what they are learning while I never went to school myself?*  
(Parent, Malangali)

*No, no way, nobody has ever asked me what my children should be learning in schools. I think that is the job of teachers; they are the ones who know about these things [curriculum].* (Parent, Bukombe)

*What I know is the books and materials my kids carry when they go to school. I see they carry bags. I know there are books and other school things in there, but to say that I know what they are teaching I would be cheating.* (Parent, Ushirombo)

*...Of course I know the subjects my kids are taking at school...Geography, Mathematics, History, all those things. But no parent for sure has ever been consulted regarding our views and opinion of what children should be taught.* (Parent, Malangali)

*It is very difficult to know what my children are learning while everything is in English. Even when you ask if I assist my children in their lessons, how can I do that while their subjects are in English?*  
(Parent, Mufindi)

## 2.4 Content analysis of selected textbooks used in teaching various subjects

Case example: Basic Mathematics for Secondary Schools Book Four published by Tanzania Institute of Education (TIE) and one of the commonly used books in secondary school from NN Publishers (NNP)

Textbooks are one of the important curriculum implementation tools. Thus, selected textbooks were collected and analysed to assess their efficacy in facilitating and promoting the delivery of curriculum at various levels of teaching and learning. The analysis of textbooks was guided by the following five (5) issues:

- i) Readability
- ii) Presentation of content
- iii) Alignment with subject syllabus
- iv) Use of examples and exercises
- v) Grammatical and factual presentation

Though the books are intended to be used by students of the same education level and are supposedly derived from and guided by the same subject syllabi, there are remarkable differences in terms of how they are organised and how the content is presented. There are also clear differences in terms of the depth of the content and presentation of factual issues. In this section, we highlight some of these differences using two Mathematics textbooks as a case study.

Both of these books are used as textbooks in secondary schools, whereby some schools use the TIE book while others use books from a sampled private publisher. Some of the salient characteristics of these books are comparatively highlighted below.

### *(i) Readability*

The TIE book seems more readable than books from private publisher. For example, mathematical formulae in the TIE book are generally more facilitative than books from private publisher. Additionally, the TIE book uses math text in presenting math equations and letters, but books from the private publisher use normal text. Furthermore, papers in the TIE textbook are wider and generally of higher quality than books from private publishers. Thus, the TIE book is generally more readable than books from the private publisher.

**(ii) Presentation of content**

Again, the TIE textbook presentation of content is better and more consistent than books from the private publisher. The TIE content is more elaborate, precise and covers more subtopics than books from the private publisher. For example, in the presentation of the subtopic of perimeters of regular polygons, the TIE textbook clearly explains the meaning of a polygon, but the private publisher textbook does not explain the meaning of this important mathematical term. Similarly, the concept of ‘magnitude of a vector quantity’ is clearly explained with examples and illustrations in the TIE textbook, but this kind of explanation is lacking in the private publisher textbook.

**(iii) Alignment with the subject syllabus**

The presentation of content in the sampled private publisher textbook is more in line with the syllabus than the TIE textbook. For example, the syllabus suggests a derivation of the formula for the tangent for compound angles. The private publisher textbook captures this aspect quite well and clearly, but it is completely missing in the TIE textbook. Otherwise, the presentation of content in both books is generally in line with the guidelines provided in the Mathematics Syllabus for Secondary School.

**(iv) Use of examples and exercises**

It is recommended that textbooks use as much examples and exercises as possible to facilitate teachers’ teaching and learners’ learning of key concepts. Both books contain relevant and useful examples and exercises, though the TIE textbook tends to have many more examples and exercises than the private publisher’s book. Similarly, the format of answers is the same in both books, which makes them quite comparable in this regard.

**(v) Grammatical and factual presentation**

A close scrutiny was carried out in the content of the books to examine its accuracy and appropriateness. This is probably an area that leaves a lot to be desired regarding the policy of using different textbooks for different schools. Our scrutiny revealed several grammatical and factual errors and mistakes in the private publisher’s textbook, which was not evident in the TIE textbook. We point here below some of the obvious grammatical and factual errors and mistakes:

### Grammatical issues

- Some sentences are not complete. For example, on page 178 (private publisher's book), "it is written, the line joining any two points on the surface lies entirely in a particular." Clearly this sentence is not complete.
- On the same page, one sentence is incorrectly written as "the length one side," probably instead of "the length of one side."
- On page 204, reporting one experiment, the book writes: "the following data were recorded in one of the secondary school [should be schools] in Dar es Salaam regarding on [no need for 'on' here] the attendance of pupils in two days of the week....even so, when the base of the pyramid of the object which is almost similar to pyramids is small, its volume is close to that of pyramid." This sentence is too long and too confusing! Interestingly, the statement talks of an object containing a pyramid instead of an object of pyramidal shape. This is clearly misleading to students, especially since English is a foreign language to the majority of them.

### Factual issues

- There are also clear factual mistakes. For example, the private publisher's book defines a parallel line as "if two or more lines are equally inclined to the positive or negative direction of the e-axis as it can be seen below, the lines are said to be parallel to each other." The words "as it can be" and the figure presented do not actually portray or represent the meaning of a parallel line. Simply put parallel lines "are two or more lines which never meet when produced infinitely." The book misses out the fact that it is possible for two lines to cross the axis and yet be parallel.
- Another obvious mistake is the way the private publisher's book defines the term composite transformation. It defines composite transformation as "transformation of points for more than one mapping," instead of "more than one mapping of points."
- On page 24, the private publisher's book uses the term "system of equations," which is a bit odd. The commonly used term is "simultaneous equations."
- On page 67, a question reads, "find the perimeter of a regular 1 sided polygon inscribed in a circle"



### **2.4.1 Summary**

The analysis of the case example on Mathematics Textbooks has shown that the use of multiple textbooks has negative implications on the quality of learning that students receive. It is clear that students are exposed to different quantity and quality of information presented in the different textbooks that are intended for the same class level. For example, the analysis above has shown that the different books may remarkably differ with respect to readability, presentation and the accuracy of materials presented. In short, the quality of education presented in different textbooks varies, with some books having better quality information than others. In the case example analysed above, it is clear that the textbook authored by TIE is more accurate than the one authored by the private publisher. The weaknesses revealed in the private publisher's book are not minor, as they involve clearly distorted and misleading factual pieces of information. This raises an issue with the Education Materials Approval Committee (EMAC) in the Ministry of Education and Vocational Training.

## Chapter Three

### Summary, Conclusions and Recommendations

#### 3.1 Summary of findings and conclusions

This study addressed three major objectives. Firstly, the study examined the effect of the curriculum in producing quality learners and graduates. Secondly, the study assessed the impact of multiple/single textbooks on the provision of quality education. Thirdly, the study investigated the level of community involvement in curriculum development and implementation processes.

Several issues have emerged from the findings of this study. Firstly, from the teachers', students' and policy makers' perspectives, the curriculum is not well suited to facilitate quality learning and production of quality graduates. Participants were generally critical of the effectiveness of the curriculum in producing competent and productive graduates. A majority of them think that the curriculum is ineffective in many ways, and they do not believe that it can produce confident, self-reliant and contributory graduates. Stakeholders also think that curriculum changes that have been introduced at different times have not taken into consideration the needs of the society. More importantly, there has been little involvement of stakeholders in the curriculum development and implementation processes. Most of the changes in curriculum were initiated and implemented from the top by key education policy makers and did not effectively include the views of other key stakeholders, such as teachers, students and parents.

Secondly, this study has revealed that, though students are generally happy with their teachers' competence in teaching and facilitating learning processes, they are overtly critical of the learning environment, particularly the lack of teaching and learning resources. The lack of adequate and quality books and other essential learning resources such as teaching aids and science laboratories are major barriers to quality learning in schools.

Thirdly, the impact of using multiple textbooks is reflected on the varied learning content that learners are exposed to. The analysis of two textbooks that were used as case example has shown that students of the same educational level and class can be exposed to different kinds of content, both quantitatively and qualitatively. This is clearly problematic given the fact that Tanzania has a single examination system in which students across the country are given the same examination for each subject regardless of the variation in geographical contexts. With the single examination system, it would be appropriate and expected that students should be exposed to a similar content from which the exams are drawn. Apparently, the use of single or multiple textbooks attracted mixed feelings from stakeholders, with a majority of participants preferring the use of single textbooks to multiple textbooks, implying that they would like to see similar textbooks used for all schools across the country. As observed earlier, perhaps this is the most logical approach given the fact our country uses a uniform curriculum in which all

students in the country are expected to learn the same content and attempt the same examinations. Using different textbooks is subjecting learners to different content and this may have negative consequences in learning outcomes in general and examination performance in particular.

Fourthly, this study has revealed that there is generally a very little involvement of stakeholders in decision making regarding curriculum development and implementation processes. This is particularly the case with regard to parents and community leaders who expressed several barriers to their participation in curriculum development. Use of English language as medium of instruction was particularly cited as one of the most limiting factors for parents' and community leaders' effective participation in curriculum implementation. They observed that most of the learning materials are written in English, which is an unfamiliar foreign language to a majority of parents and other community members. With this barrier, a majority of parents are unable to effectively follow up what their children are learning in schools and, as such, they cannot assist them adequately.

### **3.2 Recommendations**

Delivery of quality education depends on, among other factors, availability of quality teaching and learning resources and effective participation of key stakeholders in curriculum development and implementation processes. This study has established that these attributes are generally lacking in most of the schools in the country. In order to improve curriculum development and implementation processes, the following observations and recommendations have been drawn.

- i) The use of multiple textbooks in schools is evidently ineffective because learners are exposed to different learning content and experiences, while they are expected to undertake the same examination. Quality and uniformity remain problematic. For example, if one book says the liver is part of the brain, and another one says the liver is within the stomach, then children are likely to be confused. This is cheating children, especially given the fact that distribution of these books is uneven, (some will get book A, some book B), but all will be subjected to one exam that demands them to respond with one right answer.
- ii) Most citizens, parents, teachers and students prefer the use of a single textbook; therefore, the government should look into this matter again and come up with a decision that will be beneficial to all with considering quality. There is therefore a need for reviewing the policy on the use of textbooks in schools, including the possibility of reversing to earlier policy guidelines in which textbooks for each subject were prescribed centrally.
- iii) While the liberalisation of textbook production and supply was meant to address the acute shortage of books in schools, there is a need to strengthen the regulatory procedures with a view of ensuring that all books earmarked for use in schools have acceptable quality standards. Apparently, as this study has indicated, there is great variation in the quality of books supplied

by different publishers, in which the quality of books produced by some publishers is worryingly poor. Parent and community involvement in curriculum development and implementation is a critical factor in facilitating students' school achievement. Apparently, the involvement of parents and community in curriculum development and implementation is dismal in Tanzania; consequently, parents and the community in general do not have interest in and do not actively participate in facilitating their children's learning. In view of this background, there is a need to take deliberate measures, firstly to educate and sensitise parents and community leaders on the importance of their participation in their children learning, and secondly, to ensure that as far as possible curriculum changes take into consideration the views and opinions of all key stakeholders, including parents, teachers, students and other community members.

- iv) Apparently, the use of English as a language of instruction in secondary schools has emerged as one of the major barriers to parents' participation in their children's learning because most parents do not identify with or understand this foreign language. The language of instruction continues to spark a debate in our society, and hitherto there has been no serious coordinated debate on this matter. There is therefore an urgent need for the Government to take a leading role in coordinating a national discussion about the language of instruction in our education system so that a scientifically based consensus can be made sooner than later. Children learn better when they master the language of instruction, and therefore this is an issue that must be looked at seriously to ensure that whatever language is used in schools, both teachers and students must be able to master that language properly.
- v) Shortage of teaching and learning resources was the most notable limitation in curriculum implementation. This is particularly the case with respect to books and science materials. The need for the availability and adequacy of these resources cannot be overemphasised and has been noted in many other studies. There is a need for key players of the education sector to pay special attention to the availability and adequacy of teaching and learning resources in our schools, without which the effective implementation of curriculum will continue to suffer.
- vi) Effective curriculum implementation depends greatly on the availability of a conducive learning environment. Students who took part in this study were critical of their learning environments. Though teachers were hailed by many students, they work under very difficult environments, including teaching large classes, lack of appropriate teaching resources, poor housing, poor remuneration packages and lack of regular training programmes. There is therefore a need for education stakeholders to put concerted efforts and strategies towards improving and transforming the school environment where children learn so as to have an environment that makes children feel comfortable, safe and able to think so they can be successful academically and socially.

- vii) A surprisingly high proportion of teachers reported that they were not aware and/or did not understand some of the major policy documents that drive the education agenda in the country, such as MKUKUTA and the Tanzania Vision 2025. There is a need to provide regular orientations and short training programmes that will consistently update teachers' knowledge about major policy developments. This is important because a school curriculum does not operate in isolation; rather, a curriculum reflects and is made on the basis of the country's policy directions.
- viii) The current Tanzanian curriculum orientation is said to be competence based, and this is somewhat reflected in the teaching methods that have been suggested in the subject syllabi. Nevertheless, this study did not assess whether classroom teaching employs a competence based approach. There is a need for future studies to assess how teachers are implementing the competence based curriculum under the current teaching and learning environment.
- ix) Investing in teachers' welfare and training is very crucial for the provision of quality education. The Ministry of Education and Vocational Training should make sure that schools have enough qualified teachers, who are provided with adequate and quality teaching materials, in-service training whenever necessary as well as incentives to motivate them to work. Putting teachers and students in schools with no proper or inadequate facilities, poor training, and no guarantee of acquiring quality education is violating children's rights to learn, but worse, it is killing the future of this whole nation. The issue of quality and relevant curriculum and quality teaching by well prepared and equipped teachers cannot be compromised if this nation's purpose is to eradicate poverty. It is high time that provision of quality and proper education becomes a reality in this country in order to help Tanzanians address the existing challenges that are facing the nation at the individual and national levels.
- x) Since the Educational Materials Approval Committee (EMAC) is the key quality assurance organ of all materials to be consumed in our schools, this committee needs a lot of improvement. There a lot of textbooks and other materials approved by EMAC with a lot of content errors and mistakes that mislead teachers and students. HakiElimu's special study on Mathematical books and the 2010 syllabus has revealed a lot of errors and mistakes in books that have been approved by EMAC. Therefore EMAC should be strengthened. Issues of ethics and accountability should be key in running this unit to ensure that textbooks that are authorized to be used in schools are screened effectively and should settle for nothing less than quality.

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For the past two decades, parents, the Government, the private sector and civil society organisations have been complaining over the decline in the quality of education in Tanzania. There are two criteria that are used to measure the quality of education.

Firstly, scholars analyse student pass rates on basic skills such as literacy, and numeracy (addition and subtraction). Secondly, scholars also analyse the students' ability to secure employment and use the knowledge they got from school to cope with exiting challenges. It is these theories that guide many individuals' expectations when they enroll their children in school.

However, what underlies the provision of quality education is the quality of the curriculum as well as the quality of means, strategies and methodologies to implement the curriculum. If the curriculum is poor, the quality of education being provided shall also be poor. Even the teachers who implement the curriculum will find it hard to translate it into the reality on the ground so as to live up to the expectations of the people.

It was the desire to understand the state of the curriculum in Tanzania and its relation to provision of quality education that drove HakiElimu to undertake a major research on the relationship between the quality of the curriculum and provision of quality education in 2010.

This publication provides findings from that research, that includes peoples' views, opinions, and recommendations on our curriculums and the provision of quality education. We ask people to join us by reading this report and subsequently taking action in their respective localities.

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