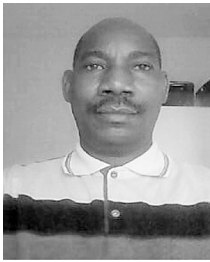




George Batano Jidamva

# Understanding and Improving Quality of Secondary School Education

Conceptions among Teachers in Tanzania



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Åbo Akademi University Press  
Tavastgatan 13, FI-20500 Åbo, Finland  
Tel. +358 (0)2 215 3478  
E-mail: [forlaget@abo.fi](mailto:forlaget@abo.fi)

Sales and distribution:  
Åbo Akademi University Library  
Domkyrkogatan 2–4, FI-20500 Åbo, Finland  
Tel. +358 (0)2 -215 4190  
E-mail: [publikationer@abo.fi](mailto:publikationer@abo.fi)

UNDERSTANDING AND IMPROVING THE QUALITY OF  
SECONDARY SCHOOL EDUCATION





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Åbo Akademis förlag | Åbo Akademi University Press  
Åbo, Finland, 2012

### **CIP Cataloguing in Publication**

**Jidamva**, George.

Understanding and improving the  
quality of secondary school education :  
conceptions among teachers in

Tanzania / George Jidamva. - Åbo :

Åbo Akademi University Press, 2012.

Diss.: Åbo Akademi University.

ISBN 978-951-765-680-1

ISBN 978-951-765-680-1

ISBN 978-951-765-681-8 (digital)

Painosalama Oy

Åbo 2012

## **Abstract**

The topic of this study deals with secondary school teachers' conceptions on understanding and improving the quality of secondary school education in Tanzania. The study is qualitative and a tested semi-structured interview has been conducted comprising thirty teachers serving in four secondary schools both in the urban and rural context. The teachers represent a varying range of teaching experiences and subject areas. The main focus has been to identify variations in conceptions about quality among teachers. Based on two research questions, an analysis of interviews yields the teachers' conceptions about understanding and improving the quality of secondary school education.

The results show that, teachers understand quality of education in their schools as meeting the aims of schools and society, as individuals' achievements and capabilities, as possessing competencies and as meeting the challenges of education. The conceptions identified were based on teachers' personal knowledge, the context of their work or the different circumstances found in their schools. Conceptions about the improvement of quality of secondary schools comprised development of teacher motivation, school contexts, classroom practices, teacher knowledge and skills and instructional materials.

The ambition of this study is to provide a platform for strategies on improving quality in secondary school education. The result aims at offering deep insights into a selected group of teachers working under the same conditions as secondary school teachers in Tanzania. Therefore the knowledge generated is also relevant for viewing teachers' conceptions beyond the selected group of respondents.

**Keywords:** quality, quality of education, quality of secondary school education, professional development,

## **Abstrakt**

Temat för studien handlar om gymnasielärares uppfattningar om kvalitet och om hur kvalitet kan utvecklas i gymnasieutbildningen in Tanzania. Studien är till sin karaktär kvalitativ och består av utprovade semistrukturerade intervjuer med sammanlagt trettio lärare som arbetar i fyra gymnasieskolor både i urbana och rurala miljöer. Lärarna har varierande arbetserfarenhet och undervisar i olika ämnen. Huvudfokus har gällt identifieringen av variationer i lärares uppfattningar om kvalitet. På basen av två forskningsfrågor avslöjar analysen uppfattningar av hur lärare förstår och önskar utveckla kvaliteten på gymnasieutbildningen.

Resultaten visar att lärare förstår kvaliteten på utbildningen i sina skolor som försök att möta skolans och samhällets mål, som individuella prestationer och förmågor som att inneha kompetenser och som att möta utmaningar inom utbildning. Identifierade uppfattningar var baserade på lärarnas personliga kunskap, arbetsmiljön och varierande omständigheter som rådde i deras skolor. Uppfattningar om en förbättring av kvaliteten i gymnasieutbildningen innefattade utveckling av lärares motivation, skolmiljön, arbetet i klassrum, kvaliteten på lärares kunskaper och färdigheter och undervisningsmaterial.

Ambitionen bakom studien är att erbjuda en plattform för strategier för att förbättra kvaliteten på gymnasieutbildningen. Resultaten strävar till att ge en fördjupad insikt i uppfattningar hos en utvald grupp av lärare som arbetar under samma villkor inom gymnasieskolor i Tanzania. Av den här anledningen är den genererade kunskapen därför relevant för att belysa lärares uppfattningar även utanför den studerade gruppen av respondenter.

Nyckelord: kvalitet, utbildningskvalitet, kvalitet i gymnasieutbildning, professionell utveckling



## **Acknowledgements**

It took six years to reach this final stage of my dissertation, and it is now time to remember and thank the people who have contributed in reaching this stage.

In the process of creating, shaping and final writing, Professor Sven-Erik Hansén, my supervisor, spared much of his time in guiding and encouraging me in scientific writing. His comments at every stage of the writing aimed at helping me to achieve this final end of my work. He deserves much of my thanks. I also thank PhD. Tom Wikman for his scrutiny and comments which helped to correct and improve my work. His inputs were helpful.

To my fellow doctoral students from Tanzania who have also assisted me in reaching this final stage of my work. Their detailed comments and critiques were not treated as drawbacks but rather as challenges and support in improving and reaching the final stage. I also thank the secondary school teachers participated in my study: their willingness and open-mindedness to participate in this study are highly appreciated. Indeed, their responses comprised the raw data for this study.

For the technical aspect, I thank Tarja Grahn-Björqvist from the Faculty of Education at Åbo Akademi University, Vasa and Peter Ahlroos of the Tritonia Library. The appearance and layout of this book is a product of their expertise. I thank the Åbo Akademi University foundation for the support offered me throughout the course.

This study involved travelling away from home and work. The travel might have caused inconvenience to other people in terms of workload. Thanks to Petronilla and Scolastica for carrying out my duties in the office while I was away in the course of this study. I thank my employer, for allowing me to participate in the DEPT project. I thank everybody who supported my travelling both in Tanzania and abroad.

My sincerely thanks, to my wife Anisia, and our sons Prosper, Fredrick, Florian and Felician; they frequently missed but encouraged me during my study. Their encouragement showed love, support and tolerance and thus this book is dedicated to them.

George Batano Jidamva

2012



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# 1 Introduction

Secondary school education in Tanzania and in other sub-Saharan Africa countries is considered important sub-sector in the education system as well as for the development of the country's economy. For example, inputs into higher education and in the labor force in Tanzania depend on qualified outputs from secondary schools (Hakielimu, 2007; Wedgwood, 2007; Koda, 2007; URT, 1995). The importance of secondary school education as a sub-sector is also evident in the Secondary Education in Africa Initiative (SEIA) report. In the report, interests in raising demand for secondary school education to accommodate the children completing primary education are highlighted. According to Vavrus (2009), improving the quality of secondary school education is considered important for educating the needed work force for different sectors in member countries including Tanzania.

From this importance, secondary school education has recently risen in the awareness among people in Tanzania and the demand to access this education has grown. The growth in demand has created the need to build more schools and classrooms in order to expand access opportunities among the children of the country. According to Basic Education Statistics in Tanzania (BEST), schools have increased in number from 1745 in the year 2005 to 4367 in 2011 (MoEVT, 2011). Mostly at the community level, a commendable development has been achieved in taking in an increasing number of disadvantaged groups.

While acknowledging the development in access, there still is little agreement on the fundamental characteristics of quality in secondary school education worldwide (Shahzad, 2007; Bedi and Sharma, 2006) and countrywide (Mosha, 2000; Hakielimu, 2007). The differences in understanding have become an interesting area of research in the sub-Saharan Africa and similar countries. Studies have been conducted mainly in higher education for the aims of establishing quality systems (Mosha, 2000; Bedi & Sharma, 2006; Shahzad, 2007). However studies in secondary education for a country like Tanzania are highly needed due to the importance discussed above and the challenges facing the education system. In this study, I explore conceptions from teachers' on understanding and improving the quality of secondary school education in Tanzania. In conducting this study, I have been interested in a reciprocal quality development, where the number of schools and enrollments are increasing while students' achievement and teacher motivation are deteriorating (see MoEVT, 2010; Komba and Nkumbi, 2008). This reciprocal relationship is creating a quality gap between the governmental intentions stipulated in the Secondary Education Development Program (SEDP) and the realities existing in schools.

The gap has led to the emerging criticism that secondary schools are not effective, as a number of students are claimed to finish secondary education with low competence.

A study conducted by Sumra and Rajani (2006) revealed that some students finish secondary education without the necessary skills in life. This is an indication that expansion has been prioritized over quality (Hakielimu, 2007; Makombe et al, 2010). Other studies showed that teaching in schools is poor as teachers are de-motivated and are poorly trained to meet the challenges in the profession (Wedgwood, 2007; Komba and Nkumbi, 2008; Ngimbudzi, 2009). Furthermore, schools have become unattractive as they are severely lacking in basic essentials needed by teachers (Benell and Mukyanuzi, 2005). Moreover, school inspections are rare and teachers lack feedback on their classroom practices. According to a National Audit report, some schools have not been inspected for several years (NAO, 2008), rural community schools in particular.

From these realities, attempts to improve the quality in secondary school education in Tanzania have seemed to slow down, as some of these challenges were not prioritized in the SEDP 2004 – 2009 (Sumra and Rajani, 2006) and research to expose them is still needed in Tanzania. If the country aims at producing a competitive economy to meet global market demands, improving the quality of secondary school education should be a priority. In this study strategy for improvement are suggested as an attempt to bridge the growing quality gap in secondary school education in Tanzania.

In reaching the strategies suggested, quality has been described based on how teachers conceive it in terms of secondary school education. In the description, I have adopted three perspectives: fitness for purpose, transformation and excellence (Harvey and Green, 1993; Lomas, 2002; Parri, 2006). The adoption of these perspectives is because of their clarity in describing the notion. In the descriptions different terms such as meeting aims and requirements, exceptional, meeting standards, enhancement, empowerment, capability, competence, efficiency and effectiveness have been used to qualify the definition of quality. The use of this range of terms is due to the complexity and multi-faceted nature of the notion quality and because various meanings of the notion exist in education (Mosha, 2000; Sallis, 2002; Bedi and Sharma, 2006; Michaelowa, 2007; Gvaramadze, 2008), and in secondary school education in particular (Malekela, 2000; Shahzad, 2007; Hakielimu, 2007). For this study the terms effectiveness and capabilities are considered appropriate in defining quality of secondary school education in Tanzania. They are appropriate in the sense that the words capture the three adopted perspectives. The perspectives are discussed



together at length in chapter three and are used as frameworks for analysis towards understanding and improving the quality of secondary school education in chapter five.

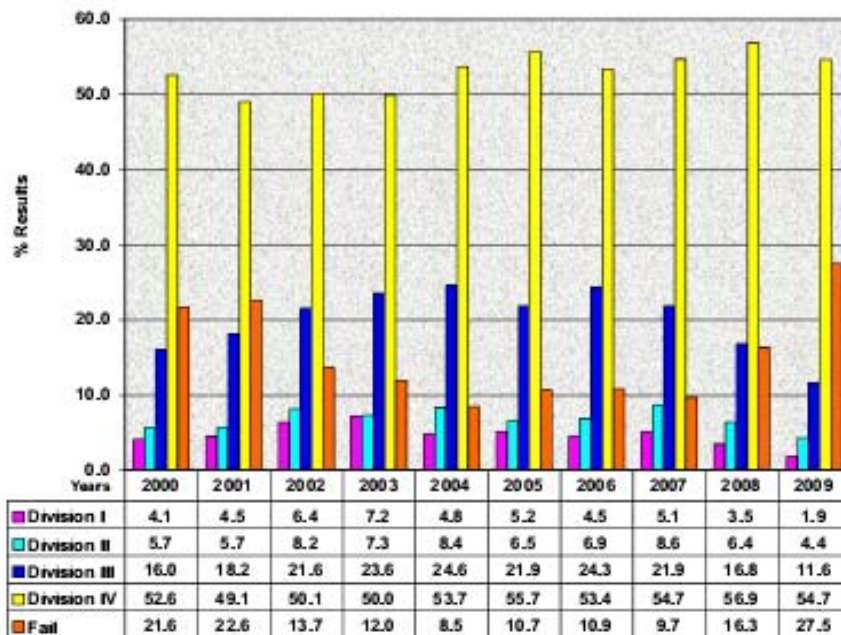
## **1.1 Background of the study**

Based on the understanding that education is a wide area of research, different studies can be conducted in its various components, such as subject areas, school contexts, assessments of achievement, and the teaching and learning processes. However, in order to obtain a deep understanding, it is important to research quality from the perspective of people's understanding. Thus, research on how teachers conceive the quality of secondary school education is needed to capture their understanding and suggestions for improvement (Shahzad, 2007; Gvaramadze, 2008). In this investigation, teachers are chosen because they are the main implementers of the curriculum and most of the realities and challenges discussed above need their attention. In their teaching, they experience various realities in schools that sometimes make them criticized.

Teaching in secondary schools for example, has been criticized as ineffective in preparing competent individuals (Bedi and Sharma, 2006; Davidson, 2006). Secondary school students are claimed to finish school as unprepared individuals who fail to demonstrate competencies in work and life (Benson, 2005) and hence become a burden on their societies (Shahzad, 2007). Teaching and learning in secondary schools are also claimed to produce only temporary knowledge and skills that are used only in answering examinations (Malekela, 2000; Wedgwood, 2006). In addition, teachers are accused of devoting less attention in their teaching to conceptual rather than procedural knowledge, which further leads to memorization of facts rather than concept meaning formation (Wedgwood, 2007). Students in secondary schools, therefore, learn superficial knowledge and the necessary work and life skills are left unattended (Sumra and Rajani, 2006). The poor achievements in examinations among secondary school students in Tanzania reflect this superficial and temporary knowledge.

In the last decade achievements in examinations in secondary schools have been poor. The low achievements are related to the challenges listed above. Because of the low grades they score, a majority of the students cannot manage to join the upper levels of education (see MoEVT, 2010). According to the Education and Training Policy (ETP) of 1995, students joining upper secondary school education in Tanzania have to score a minimum of division three, a score that has proved difficult to achieve for the majority of students finishing lower secondary schools. The chart below shows the trend for the years 2000 - 2009.

**Chart 1: Form four examination results (2000 - 2009)**



Source: MoEVT, Basic Education statistics in Tanzania, 2010

As the chart shows, the results of a larger proportion of candidates lie in the weaker grades (division IV and fail). In 2009 for example, out of 248,335 students who sat for final examination, only 44,452 (17.9%) students (scored division I to III) were eligible to join upper secondary school education. This means that a larger number return back to society unprepared and continue facing the challenges of life (Sumra and Rajani, 2006). This is a serious issue to be addressed when the country is striving to attain quality in its education systems. The results in the chart above can be used as indicators that secondary school education is inadequately preparing individuals.

In 1967 Tanzania introduced the philosophy of education for self-reliance (ESR) aimed at equipping learners with skills for work and life (Nyerere, 1968b; Ishumi and Maliyamkono, 1995; Benson, 2006). The advocacy in the education for self-reliance (ESR) was terminal and complete education (Nyerere, 1968b). By terminal and complete it was meant that each level of education provides knowledge and skills that offer the necessary skills for work and life which would empower individuals to co-operatively develop their societies. The

emphasis in ESR was co-operation, citizenship and work (Nyerere, 1968b p. 8). Interpreting from ESR, education and teaching had to relate both theory and practice (Ishumi and Maliyamkono, 1995). In schools, teaching had to integrate practical activities that could give students opportunities to practice the knowledge and skills acquired in lessons. Now ESR is not at the forefront, as it is no longer discussed either in educational forums or in politics. With the absence of ESR, this present study considers quality a core value in the growing investment in secondary school education in Tanzania. Quality in secondary school education is essential in the development of the country's economy.

As discussed in the introductory section, outside of the important role assigned to quality, the notion seems to be difficult to define precisely. This has made it a topic of discussion in various international education forums (Mosha, 2000; Sallis, 2002; Ololube, 2006; Bedi & Sharma, 2006; Michaelowa, 2007) and in Tanzania specifically in secondary school education (Wedgwood, 2007; Rajani and Sumra, 2006; Hakielimu, 2007). In current international research much attention is placed on how to improve the quality of education (Veira, 2002; Gropello, 2006; Filippakao and Tapper, 2008), and especially the quality of secondary school education in developing countries (Wedgwood, 2007; Shahzad, 2007) due to its contribution to the development of the social sectors.

Interest groups in the discussion about the quality of secondary school education in Tanzania include parents and employers (Malekela, 2000) and people in politics (Hakielimu, 2007). These have revealed varying conceptions about the notion. Parents and employers, for example, relate the quality of secondary school education with achievement in examinations, competence and capabilities in work (Sumra and Rajani, 2006). Claims about the falling standard of achievement among students in secondary school examinations are referred to as indicators of low competencies in work (Wedgwood, 2005) and teachers are blamed for being not effective.

People in politics emphasize the expansion of access, which in return has created an imbalance against resources and quality. Following the millennium development (MDGs) and education for all (EFA) goals, emphasis has been more on expanding access than focusing on quality (Hakielimu, 2007). From the politicians' viewpoint, increasing access to education and secondary education in particular, is a priority. In other words, when development in education is discussed primary reference is made to increased enrollment and increased number of school structures. In different forums, Kiswahili phrases like 'maisha bora kwa kila mtanzania' with the English meaning 'better life for every individual in Tanzania' are commonly used in the agenda. In this case, better life

in the community is anticipated to result from education and in this case secondary school education (Malekela, 2000).

To address these emerging and varying conceptions, and from the complex and multi-faceted nature of the notion quality, a range of literature is needed. Thus, in this research different literature discussing quality in education from both a global and local perspective is reviewed. As highlighted in the introduction, there are different terms for defining quality. This study considers the terms 'effectiveness and capabilities' as key words leading to the meaning of quality of secondary school education. The terms are discussed in details in chapter three and in the concluding discussion. However, knowing the complexity of the notion quality, the definition is not only restricted to these terms but is discussed from the perceptions of this writer. In this sense, different definitions of quality of secondary school education can exist depending on who is defining them (Shahzad, 2007) and for what purposes (Anyamele, 2004; Bedi and Sharma, 2006; Gropello, 2006). And from the fact that the aims and purposes of secondary school education vary from country to country, it is evident that, the notion remains relative and contextual (Sallis, 2002).

In general, the quality of secondary school education cannot be separated from the context and circumstances that are found in schools. A number of secondary schools in Tanzania lack teaching and learning materials (Sumra and Rajani, 2006), are understaffed, and some teachers under-qualified and de-motivated (Davidson, 2006; Komba and Nkumbi, 2008). Classrooms are also overcrowded, which affects teaching negatively (Wedgwood, 2007). Moreover, research on this level of education is still needed to expose more challenges and suggest some solutions. To be able to improve the quality of secondary school education, clear knowledge is needed from teachers, who are the key actors.

## **1.2 Motives and general aim of the study**

In conducting this study, my motives are threefold. First is my experience in the profession and in teaching. I taught in secondary school for eight years and thirteen years as a teacher educator. Both in secondary schools and college I experienced a mismatch in teacher's conceptions about different quality issues, e.g. student achievements, effective teaching and improving classroom practices. Teachers argued differently, depending on their perceptions, knowledge and experience in the profession or subject area. My ambition therefore, is to reveal what conceptions can be found from teachers about the quality of secondary school education. The results will expose variations in teachers' understanding of the notion. Thus, the study will be used as a base in the designing of in-

service programs for improving the quality of Tanzanian secondary school education.

The second motive is from the expansion of secondary school education in Tanzania. As discussed in the background, expansion has created more challenges to quality in schools and thus extends the search for understanding of the notion. My motive is therefore to reveal what are teachers' voices in the growing imbalance between access and quality in secondary schools. The third motive stems from the increasing demand for research in the area of secondary school education. However, the existing research on secondary school education that have been reviewed (Malekela, 2000; Wedgwood, 2005, 2007; Sumra and Rajani, 2006; Hakielimu, 2007), none of them discusses on teachers' conceptions. This study, therefore, adds to the literature and fills this existing gap by investigating conceptions from secondary school teachers. As cited in Creswell (2008), research is important in education as it produces new knowledge and suggestions for improvements and hence my motivation is to search for conceptions on understanding and improving the quality of secondary school education in Tanzania.

The epistemological point of departure in the motives above is subjectivist meaning, that can be obtained from teachers' personal ways of describing their work. In the study I try to catch knowledge from teachers' socially constructed reality through the meaning they attribute, and experiences and values in their work and lives. Thus, the epistemological point of departure relies of the above described ontological relativism, i.e. that the social reality and that knowledge we can achieve is socially constructed.

Based on these motives and the background discussed above, the general aim of this study was to explore conceptions on teachers' understanding and improving the quality of secondary school education in Tanzania. The reason for investigating teachers' conceptions is from the assumption that the understanding of any phenomenon lies in people's conceptions (Marton, 1981), and that understanding can further lead to improvement (Peters, 1992). According to Eklund-Myrskog (1996), conceptions are the ways people experience or understand a given phenomenon. These are overall views that individuals have of a phenomenon. Pratt (1992) cited in Kember (1997) also describes conceptions as specific meanings attached to a phenomenon. In this case, the quality of secondary school education is the phenomenon in focus in this study.

This study therefore, is relevant because teachers are aware of the realities and challenges facing secondary school education in Tanzania. They have

knowledge about the low achievement rate in Tanzania and that students are leaving schools unprepared (Wedgwood, 2005; Hakielimu, 2007), lack skills for work and life (Davidson, 2006) and become burdens on their own families and societies. The teachers' inputs in this study add knowledge to the understanding and improving the quality of secondary school education.

### **1.3 Structure of the thesis**

This thesis is organized in the following order. Chapter one introduces the general background of the study and discusses the realities in secondary schools in Tanzania. The chapter further highlights the motives and overall aim of the study. Chapter two gives the context of the study, while chapter three presents a literature review where the notions quality, quality of education and quality of secondary school education are discussed in various perspectives. In the literature review, more examples are given from both Tanzania and worldwide.

Methodology is discussed in chapter four. In this chapter, the research questions, research approach, demographic characteristics of the sample and methods for data collection and analysis are presented. Chapter five presents the findings obtained from the study. Variations in conceptions supported with excerpts or phrases from teachers' statements are presented. Chapter six presents a concluding discussion. In this chapter, the results are discussed at length and conclusion is drawn on understanding and improving the quality of secondary school education. Finally, the implications of the results and areas for further researches are suggested.

## 2 Context of the study

Secondary school education in Tanzania refers to that full time program of education provided in accordance with Government approved curricula and availed to students who have completed primary education (URT, 1995). Formal secondary school education consists of two sequential cycles; a four-year of ordinary level (O-level) and a two-year of advanced level (A-level) secondary education (ibid). According to the Ministry of Education standards, selection and of students to enroll into O-level government secondary schools are made on the ‘basis of a pre-set national standard cut-off point of performance’ in the National Primary School Leaving Examination (PSLE) (URT, 1995). Students enrolled in secondary schools need to score a minimum of 100 scores in their Primary School Leaving Examination (PSLE). On the other hand, selection and enrollment into upper levels of secondary education is based on prescribed performance achieved in the relevant upper level subject combinations in respective schools. The selection is done after students’ attainment of appropriate credits in the final secondary examination. In all cycles the emphasis has been on development in terms of access and improved quality of the education provided (URT, 2004).

In Tanzania, the movement to develop and improve the quality of secondary school education began when the country became independent in 1961. At independence, Tanzania had only 41 secondary schools designed for the elite who were prepared to serve and assist in different social sectors. The number of schools began to increase immediately after independence to educate people and to fill the positions left by the colonial masters and from the need to develop the country’s economy. As the demand for more skilled people increased, the number of schools, students and teachers also increased, as shown in the table below.

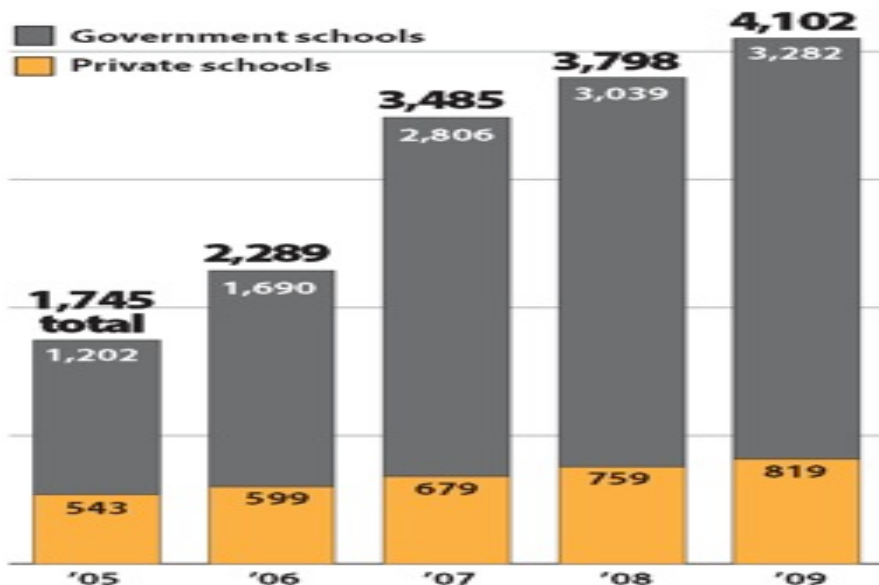
**Table 1: The increase in number of schools, students and teachers since independence**

<b>Item/Year</b>	<b>1961</b>	<b>1971</b>	<b>1981</b>	<b>1991</b>	<b>2001</b>	<b>2011</b>
<b>Schools</b>	41	116	158	405	937	4367
<b>Students</b>	11832	43352	67602	166812	289699	1789547
<b>Teachers</b>	764	2199	3262	10928	14352	52146

Source: Ministry of Education and Vocational Training statistics, 2011

The increase in the fifth decade can be interpreted as the result of the introduction of the Secondary Education Development program (SEDP 2004 – 2009) aimed at increasing access to secondary school education in Tanzania. During the first phase of the program, attention has been on increasing the number of schools to accommodate the growing demand to this education. The chart below shows the rapid increase during the implementation of the first phase of the program.

**Chart 2: Number of secondary schools in Tanzania (2005 – 2009)**



Source: MoEVT, Basic education statistics in Tanzania, 2010.

In the rapid increase, the majority of the new constructed schools are community-built government day schools. The increasing community participation in the construction of schools is a sign of growing social demand and awareness for secondary school education. However, the ability to construct varies with the level of awareness and poverty among societies as the quality of the structures constructed also differs (Wedgwood, 2007). Furthermore, the perceptions of the quality of education also vary among people from different background and types of school in the country. The variations have rated secondary schools in Tanzania into three different type namely ‘special’, ‘ordinary’ and community schools.

‘Special schools’ are those considered academically competitive, drawing high achieving students from all over the country. Kitchen (2004) equates ‘special



schools' with academically high achieving schools. For him, high achieving schools are characterized by high academic expectations, strong sense of purpose, regular professional development among teachers and enough teaching resources. In such schools there is clear focus, effective leadership, and supportive learning environments (see also Bergeson, 2007). In Tanzania these schools are few, mainly boarding, and highly resourced in terms of teachers and teaching and learning materials. Because of the high achievements in these schools, the expectations from society are also high.

The 'ordinary schools' include the normal boarding schools and they are relatively less competitive as compared to 'special schools'. From the English dictionary the word ordinary means something without special conditions or interest (The Oxford Dictionary). They are less competitive because, in selecting students to joining secondary schools, 'ordinary schools' are given second priority following 'special schools' and hence receive students who had lower achievement as compared to 'special schools'. In number, the 'ordinary schools' are relatively many as compared to 'special schools' and also draw students from all over the country.

The third and largest group of schools in Tanzania is the community day schools. These are established, run and largely managed by local education authorities (Hoppers, 2005). According to Buchert (1994), the focus for community schools is to integrate and bring ownership to the community and serve as an alternative provision of secondary education. In Tanzania community secondary schools are built to serve the needs of the people in the locality where they are sited (Wedgwood, 2005). The introduction of community secondary schools in Tanzania was meant to serve as an alternative to improve access to secondary school education and to people who cannot afford the conditions in other types of schools (Wedgwood, 2007). In terms of selecting students, community schools receive up to students who score the cut-off points. However, the contexts of the community schools vary depending on the economic capabilities and awareness of the people in the respective community, as social disparity is increasing among schools (Wedgwood, 2005).

Among the three types of schools in Tanzania, 'community schools' are the most challenged. They lack most of the important facilities, e.g. laboratories, teaching staff and teaching and learning materials. They are poorly staffed because they lack teachers' facilities like housing and common and preparation rooms and thus they fail to retain teachers (Sumra and Rajani, 2006). Furthermore, care and support for the schools from the local authorities is low from the poverty level of the community they serve (Wedgwood, 2005). From this stance, the

deteriorating quality of secondary school education in Tanzania to a greater extent rests with community schools. Definitely the outputs from community schools are increasingly poor and are negatively affecting the quality of secondary school education in Tanzania.

As an alternative way, the country has opened opportunities for the private sector in the provision of secondary school education (Lessibille et al., 1999). Schools mainly owned by religious groups have been constructed, as summarized in chart 2 above. As compared to government schools, challenges in private schools are relatively few, making them compete with the 'special schools' in terms of students' performance (ibid). With great support from their host organization, the schools have a better stock of resources in terms of teaching and learning materials, text books and student-teacher ratio. However, fees in private schools are uncontrolled as there is no clear policy (Wedgwood, 2007). Schools charge high fees and the majority of children from poor families cannot afford them.

The existing fee policy applies only in government schools, leaving private schools with the autonomy to decide on how much they can charge. The autonomy therefore, has led to an uncontrolled fee structure in private secondary schools (Hakielimu, 2007). To minimize disparities among schools, a fee policy for these schools is needed in Tanzania to be able to harmonize and establish a clear fee structure. However, the public-private partnership in provision of secondary school education in the country is a commendable.

### **3 Quality of education**

This chapter discusses the notion of quality and its applications in education and secondary school education in particular. The discussion is based on the three perspectives of fitness for purpose, transformation and excellence. The perspectives are selected from their relevance and simplicity in describing the notion quality. In the descriptions I have cited examples of quality issues from both the Tanzania context and abroad.

#### **3.1 Defining the notion quality from different perspectives**

For the past number of years, quality has continued to be a dominating and challenging notion in different fields of research. The term has been used in the commercial field and is increasing growing in the field of education. Throughout its history, the notion has remained a discussion agenda and varying definitions can be found, depending on the way the notion has being used. Quality has been defined as; a high degree of goodness or excellence (Mosha, 2000), a degree of fitness to what the customer wants (Harvey and Green, 1993; Lomas, 2002) and the level of satisfaction with effectiveness in the service offered (Manyanga, 2007). The term quality therefore means the extent to which customers are satisfied with a product or service. Furthermore, from its relativity the notion is perceived from different perspectives such as excellence, perfection and consistency, value for money, transformation, enhancement, empowerment and fitness for purpose (Harvey and Green, 1993; Harvey and Knight, 1996; Lomas, 2002; Parri, 2006; Weir, 2009). As outlined in chapter one, the present investigation adopts the perspectives fitness for purpose, excellence and transformation. Terms like effectiveness, enhancement and empowerment are also used interchangeably as they are closely linked to topic of study. Altogether, the perspectives are employed as a framework in the description of the notion quality and the way it is used in education in general and secondary school education in particular.

##### **3.1.1 Quality as fitness for purpose**

As in the manufacturing sector, this definition has been used in higher education in deciding the extent to which service and outputs meet the set goals of higher education (Harvey and Green, 1993; Lomas, 2002; Manyanga, 2007). From this view quality is obtained through mission statements and goal achievements (Parri, 2006). The focus in this perspective is on the needs or requirements of the customers or interest groups. According to Saddon (2000), schools as organizations have to prove to their customers that ‘what they do is what they say’ and have to be vividly seen by societies as third parties. In other words,

schools in their daily activities are required to practice towards achieving the requirements of society. How effective they are and how the goals are best achieved is assessed by interest groups in the society as a third party.

In earlier research, the notion fitness for purpose has been widely used to mean fitness for use (Juran and Gryna, 1980), goal direction and conformity to specifications (Crosby, 1979), but in recent studies the notion is used to refer to goal achievements (Parri, 2006) and customer satisfaction with the effectiveness of service (Manyanga, 2007). From these definitions and so in this section, the words 'goal and specifications' are taken to imply the end results of quality. This means the ability of quality to meet the needs and desires of people. As Rao (2003) suggests, quality can be defined as something that best satisfies and exceeds customers' needs or wants. From this definition it is the customers who decide on quality in answering their requirements (see also Harvey and Green, 1993). However, exceeding the customers' needs seems to be elusive and the illusion further extends to the use of the term customer (Elton, 1992). The term customer is relative as it varies in its meaning when used in different disciplines (Sallis, 2002). In the commercial field, a customer is the user of the products or goods (Lomas, 2002). While in social sectors like in education, customers may stand for students and other interest groups (Parri, 2006; Hakielimu, 2007). In both cases satisfactions with the requirements is considered important in explaining quality.

It is also argued in Ololube (2006) that, quality is a functional notion, and that it can be defined from the way outputs function to meet the requirements of the users. From this statement, quality is based on the ability of the outputs to best functions in the intended tasks (Vedder, 1994). In this case, quality is reflected in terms of usefulness, and in the value possessed by the interest groups (Parri, 2006). Thus, how the requirements are best achieved in offering services defines the rank of the organization in terms of quality (Moshia, 2000).

According to Daming (1982), fitness for purpose is seen to be deceptive as it raises different questions such as of whose purpose?, for what purpose?, and how quality can be assessed? It is difficult to give quick answers to these questions as they place the responsibility for quality on both the customer and the provider (Harvey and Green, 1993). To the customer, fitness for purpose is based on the way specifications are met (Lomas, 2002; Manyanga, 2007). In this view, the customer has the autonomy to choose the service. But how practical is this in our societies? In practice, customers do not often specify their requirements and hence producers tend to decide on the specifications (Harvey and Green, 1993). From this view, specifications are anticipated by the producer

or provider. This implies that, irrespective of the specifications, the process of service provision is still in the hand of the provider and hence quality is looked at as output rather than a process.

In conclusion, defining quality using fitness for purpose sometimes seems to be vague and different critiques may exist since the best achievement of set goals is relative, depending on the satisfaction of society. In most service-giving organizations, it is hard to strongly identify who is the customer (Elton, 1992). In this case the term interest group can be used to carry the same meaning instead of customers. The ability of an interest group to make a choice is rather situational, as it depends on the needs of that specific interest group. From this relativity, fitness for purpose has to be clearly defined when used to explain quality, especially when dealing with human-related services such as education.

### **3.1.2 Quality as transformation**

Rooting from the transformation perspective, quality is explained in the form of change (Lomas, 2002). In human daily life, to change means to vary in structure or look different, be modified or adjusted from the existing structure. This is not the case in education, as learning is not an absolute or solid object that can easily be modified or adjusted; rather it is a developmental process which takes a qualitative change. In school, for example, learning is an incremental process or a transformative change that takes an individual from one level of understanding to another.

Harvey and Green (1993) described transformation as a process of changing from one state to another. The state may be the structure, form or make of an object and the variation is then the transformation. This argument brings the basic understanding that variation takes the complete change of an object (Lomas, 2002). An object is varied if it is completely changed from its present into a different state. Harvey and Knight (1996) used an example of ice to explain the process of changing in states. The ice can be transformed into water and further into steam when it experiences an increase in temperature. This state is a physical change that can go back to its original state if the temperature is reduced. But when the temperature further increases above boiling point, the water changes into steam and evaporates into air.

In education, learning is developmental, and hence a transformation process. In other words, transformation is a qualitative change that is difficult to measure (Harvey and Knight, 1996). Usually, qualitative changes are made to accommodate basic requirements from societies, but they are rather difficult to measure. In the example of ice, the increase in temperature is easy to measure,

but the qualitative change is not. Similarly, it is difficult to quantify human qualitative changes like learning. Measurement of qualitative changes is problematic because the transformation is based on outcome-oriented assessment viewed from standards, and hence improvement is developmental (Weir, 2009). However, Saddon (2000) cautions that measuring quality should not consider it as an absolute since it can mislead as people can concentrate on what they can count rather than what it counts. In other words, quality is a dynamic process where changes are acquired through a developmental process. As Peters (1992) (cited also in Lomas, 2002) states 'if you can measure it, you can improve it'. This means that knowing quality gives the opportunity to improve it.

In human characteristics, transformation is a process that not only refers to physical change, but also to cognitive and social changes. For example, learning requires developing knowledge and skills, attitudes, and abilities (Hakielimu, 2007) from a lower to higher level. In this case, learning is a cognitive change, and hence a transformation process. From this origin, transformation takes the form of a social change, which includes behavioral, emotional, psychological and moral changes (Eckel et al, 1998). In other words, social change is the process of adding value to an individual and as a bottom-up approach to continuous improvement (Campbell and Rozsnyai, 2002). The magnitude of added value depends on the intended change (Harvey and Knight, 1996). Thus for clarity the terms transformation, enhancement and empowerment are synonymously used to mean positive changes from a poor to a relatively better state.

Enhancement is the term that has been widely used to explain a change of or improving quality. Campbell and Rozsnyai (2002) state that enhancement is the procedure or change used to improve practices where the emphasis is on goal attainment (see also Lomas, 2007). Goal setting is a priority for bringing about change in any organization. Goals are purposes or targets set by organizations to direct and shape the daily activities (Ololube, 2006). Therefore, goal setting is a continuous process in human life, as enhancement also is a continuous search for improvement (Vlăsceanu et al., 2004; Gvaramdze, 2008).

As a social phenomenon, enhancement is the process of adding value or knowledge and skills (Harvey and Green, 1993; Lomas, 2002). It refers to developing an individual from a less to a relatively improved state. Added values are the indicators of quality, and in education they are in the form of an increase in the knowledge, abilities or skills of an individual (Gvaramdze, 2008). Enhancement can be defined as strengthening or improving existing practices

(Lomas, 2007), and hence an individual is enhanced if there is new and meaningful or productive knowledge added.

This qualitative state of enhancement is rather difficult to measure. My emphasis is that value added cannot be taken as discrete entities in an individual but rather as continuous and overlapping processes of transformation. Taking schooling as a process of adding values, the difference between what students have attained after completing education as compared to what they had before (by the time they began schooling) would stand for a measure of added value; in other words, what capabilities students have acquired in schools stands for added values.

Empowerment is another way of describing the transformation of individuals. According to Dowling, (2008), to empower is to authorize or enable individuals and become fully functional in their societies toward achieving quality (see also Ololube, 2006). It is giving freedom or authority, awareness, confidence and critical reflection in planning, organizing, implementing their work and then making decisions for further improvement (Gvaramdze, 2008). Various sources of empowerment can apply to an individual in an organization in the form of shared visions, the sharing of necessary information, solving problems together and frequent feedback. The term vision means a mental picture of the organization which every member works towards achieving (URT, 1998). The vision of the organization is the statement that directs the performance. The provision of required information and the giving of frequent feedback are similar to delegating responsibilities (Harvey, 1999). Delegating is passing on duties or responsibility to others for the aim of improving performance in an organization (Gvaramdze, 2008). Delegation that is aimed to bring about change is accompanied by the giving of frequent feedback. This process helps in sharing experiences from the delegator to the delegated (Harvey and Green, 1993). These processes, therefore, help to improve the quality of the products and services in the organization.

Like enhancement, empowerment is the process of adding value to an individual (Lomas 2002). Values in terms of knowledge, skills, competencies and capabilities are added to an individual and can be recognized in the form of confidence and critical reflection (Gvaramdze, 2008). Thus, empowerment is seen through increasing self-confidence, political potential, critical thinking and awareness among people (ibid). In other words, people become self-confident if they are able to make their own decisions. At the same time, they are self-aware or if they have critical minds, they can criticize themselves and develop new knowledge and skills. In this process, critical thinking is developed and decision is influenced by confidence and awareness (Harvey, 1999).

The two impacts, confidence and critical reflection therefore make empowerment a self-regulatory process (Harvey and Green, 1993). This means the process of improving an individual's own knowledge and skills through practice and reflection. In a self-regulatory approach, individuals are given roles to perform and to make reflections for improving their effectiveness in performance (Manyanga, 2007). The approach leads to a greater feeling of ownership of the work by the individual (Harvey, 1999) and helps in developing critical thinking and reflection and hence leads to informed decision making. However, like enhancement, it is hard to assess empowerment, especially with people in the organization. To assess empowerment, people from outside who can easily see changes are needed. External or monitoring bodies can better assess the quality in the form of empowerment (Lomas, 2002).

To conclude this section, I would emphasize that transformation is a developmental or incremental process of change. From its qualitative state, it is difficult to measure the changes occurring since no one can easily see when it has developed. In education, transformation can be related to learning. Learning is a behavior change and hence it is a qualitative change. Quality of education and quality of learning are incremental processes that are not measured as absolutes, but rather as qualities in individuals in terms of competence, confidence, and self-awareness. Students spend years in school learning different kinds of knowledge and skills to acquire competences. Their qualitative change definitely cannot be measured using only examinations but a combination of different methods. To explain this kind of change, the notions enhancement and empowerment are used. They explain change in terms of adding value, qualitative change in terms of knowledge, skills and capabilities in individuals. Thus, adding knowledge means improving and hence it is a qualitative change or a transformation process.

### **3.1.3 Quality as excellence**

In daily life, people usually compare objects from their characteristics like color, weight, and appearance. If an object appears to be extremely different from others, it is seen as exceptional (Harvey and Green, 1993). Exceptional in this case is taken to mean being extraordinary or possessing outstanding characteristics, which means excellence (Mosha, 2000). Excellence is the notion which equates quality to high standards (Lomas, 2002). In schools which have all resources and qualified teachers, students are expected to produce excellent results. Similarly, Harvey and Green (1993) argued that quality is conceived as a distinct excellence or high standard or being high competitive (Manyanga, 2007). To acquire high standards, an object has to possess distinct characteristics exceeding others.



Excellence is associated with the notion of uniqueness, something individual or ideal (Harvey and Green, 1993). Quality in this sense tends to be dynamic and relative (Sallis, 2002). For example, what is good to one individual may not be the case to others. Furthermore, what is seen as relevant in one society is not a necessary and sufficient condition to generalize to a wider society (ibid). Moreover, quality in this perspective is not judged against a set of criteria, but from separate and unattainable standards (Mosha, 2000). The uniqueness of quality, therefore, neither offers a scale for measuring nor attempts to define it (Weir, 2009). The notion is taken at the level in which it is used in daily life.

In defining quality in this perspective, high standards and excellence are sometimes used synonymously. According to Mosha (2000), standards are levels of excellence or acceptable results and are usually set by an authority. In this case, organizations use the set standards to appraise or upgrade the performance of individuals and institutions (Lomas, 2007). Viewing excellence as standards makes the notion become relative. Standards are norms or values set by the organization to shape individual performances (ibid). They are dynamic, and usually vary, depending on the vision in the organization. Thus, standards for one society may differ markedly from other societies. It is therefore difficult to generalize.

Excellence can also be looked upon in terms of perfection, meaning zero error or no defects (Parri, 2006). In measurement, zero error means the exactness of the measure, or beyond doubt. As discussed earlier, in qualitative measurement it is difficult to reach zero error because measures vary with people's perceptions and it is difficult to quantify them (Mortmore and Stone, 1990). In this case, excellent is more of a personal way of judging, which may be difficult to reach a common agreement on, especially when judgments are made against people. In addition, perfection means that no more change is desired in an individual or organization, which limits its use in education, where qualitative changes are expected to occur and improve.

Similar to perfection, another notion used to explain the exceptionality of quality is the ability to conform to standards. This means the object has to abide to set standards (Parri, 2006). This is a weaker notion of quality as it dilutes the idea of excellence. While excellence advocates the raising of standards, this perfection expects conforming to the available standards. A quality output in this sense is a product that has passed a set of quality checks or measures (Mosha, 2000). These checks are based on set criteria that are designed to either accept or reject a product or items and may tend to limit creativity and thus quality if standards need not be exceeded. Conforming to standards is the same as conforming to

customer requirements advocated in the fitness for purpose perspective, meaning limiting creativity and relying only on set standards. Harvey and Green (1993) assert that products that satisfy the criteria through checks will have conformed to the standards. This is not the case in human behavior where behavior change tends to increase in standards (Lomas, 2002).

In this view, the benchmarks may be set internally or externally. The internal standards can be related to intrinsic motivation and the external ones to the extrinsic motivation of an individual (Mosha, 2000). Motivation is a driving force to improve individuals' performance and hence a drive towards quality. In the excellence approach, quality is improved if the standards are raised. A product that attains a higher standard is at relatively higher quality and the reverse is also possible.

In summing up, the notion of excellence has proved relevant in defining quality. Besides that, excellence is dynamic and relative, the catch phrases exceeding standards and highly competitive can be used to refer to quality. The section has also discussed about perfection or zero error and conformity to standards. These seem to lead to a weaker side of defining quality since zero error is an ideal situation, which in qualitative practices is difficult to reach. Conforming to standards, on the other hand, minimizes the innovations or chances to improve, hence it dilutes the quality. Therefore, I do not include them in the discussion about quality of education and quality of secondary school education in the next sections.

### **3.2 Quality of education in different perspectives**

In education, quality continues growing as an interesting area of research. In the past decades, researchers have tried to answer the question 'what quality is in education'. Different names like elusive (Sallis, 2002), multi-faceted (Fraser, 1994) and slippery and value-laden (Harvey and Green, 1993) have been given and thus, making the notion to continue becoming as philosophical, complex and challenging area of research. Studies have further been conducted on different perspectives trying to define the quality in education (Harvey and Knight, 1996; Lomas, 2007; Parri, 2006; Manyanga, 2007). In Harvey and Green (1993), and later in Lomas (2002), quality in higher education is described using four perspectives fitness for purpose, value for money, transformation and excellence. Parri (2006) used six perspectives: exceptional or excellence, zero error, fitness for purpose, transformation or reshaping, threshold, and enhancement.

This section adopts fitness for purpose, transformation and excellence to define quality of education. The adoption of these perspectives is because of their

clarity and relevance in describing quality in education. Relevance is taken from the fact that education aims to offer knowledge, skills, and capabilities as according to the requirements of society (Lomas, 2002). In addition, education is taken as a developmental process where students are academically raw at entry and are transformed to acquire knowledge, skills and competences (Hakielimu, 2007). More importantly schools and students strive to achieve high standards in their performances so as to exceed others (Mosha, 2000). From this line of thinking, the quality of education can generally be discussed from these perspectives. From its developmental process, education needs improvements from time to time, thus the adoption of enhancement and empowerment are important to explain the developmental process (Parri, 2006). From this adoption, quality of education can further be defined as the qualitative change characterized by excellence in performance towards achieving end results. The end results in this case are knowledge, skills and capabilities, while performance is referred to the teaching and learning process. In this section, different examples are cited from both Tanzania and globally.

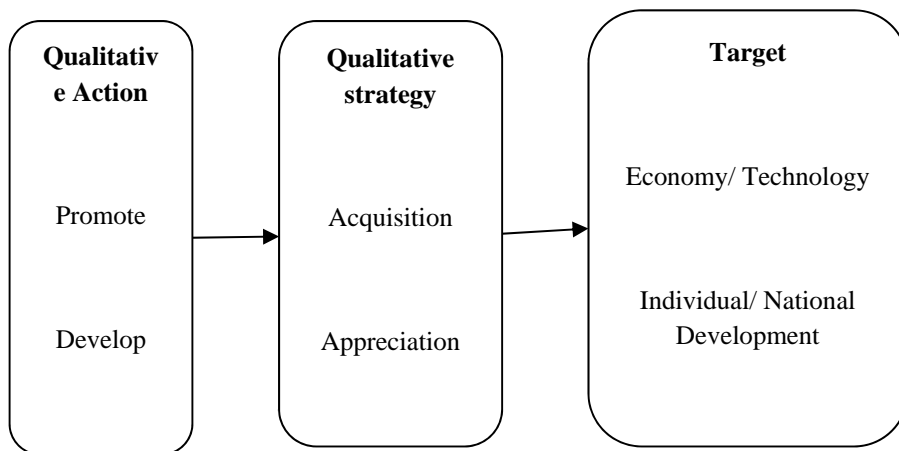
### **3.2.1 Quality of education in the fitness for purpose perspective**

The notion fitness for purpose has been widely used mainly in higher education (Lomas, 2002). It has been used to assess whether programs and assessments are achieving their intended outcomes (Harvey and Knight, 1996; Weir, 2008). The adoption of this perspective is from the fact that the provision of education is directed towards meeting the aims and requirements of interest groups (Wedgwood, 2007; Hakielimu, 2007). This means the end result of any education system is to ensure that needs are met with great satisfaction from individuals, society and the nation at large (Parri, 2006). Achieving the aims and developing capabilities is one way that quality can be reached in education.

Warn and Tranter (2001) used the fitness for purpose perspective to study the relationship between the development of competencies and entry into the workplace among higher education graduates. In their study they argued that the aim of higher education is to develop competencies that prepare individuals for work. The authors take competencies to mean the effective abilities to transfer or use the acquired knowledge and skills in work to achieve the intended outcome (see also Mayer, 1992). Matching from this study, educational institutions therefore, are required to offer quality in their delivery to meet the requirements of interest groups. In their argument, the relevance of fitness for purpose is from the fact that any education is aimed at developing competencies through the acquisition of different skills (see also Parri, 2006). The competencies developed include: team work, interpersonal skills, problem-solving and leadership (Warn and Tranter, 2001). Other competencies are planning, strategic thinking and

evaluating (O’Neil and Onion, 1994) and the ability to use technologies in work (Mayer, 1992). In work places these competencies are recognized by employers through effectiveness in working among employees. The level of competence possessed by an individual is understood through measuring effectiveness in different tasks (Warn and Tranter, 2001).

Marton and Booth (1997) argued that people live in one world but they experience it differently. From this we can also argue that each country has its own aims for education, depending on the needs of its societies. Despite the fact that countries differ in needs and requirements, the central aim of any education is to produce people with knowledge, skills and different ways of solving problems (Harvey and Knight, 1996). In this sense, the ability of institutions to act according to their mission statements and produce individuals with critical minds reflects fitness for purpose (Lomas, 2002; Sumra and Rajani, 2006). One way to improve quality in education therefore is to determine the needs of students and societies that are included in the aims statements and then modify the processes to meet them (Ololube, 2006). Thus, in the aims, specific actions, strategies and targets have to be included as summarized in the figure below.



**Figure 1: The aim flow model (Modified from Bloom 1956)**

In the diagram above, aims are stated focusing on the target and hence the qualitative action and strategies are the means to reach the end result (Bloom, 1956). The sample phrases are examples that can be used in stating the aims in education. The arrows indicate the direction in the statements of the aims.

In education, therefore, aims are stated, but achieving the end results is more important towards realizing quality. The achievement of aims depends much on the implementation, scope and coverage of school curricula. In schools, knowledge, skills and competencies are acquired through teaching a balanced curriculum (Kamalanabhan, Teeroovengadam and Seebaluck, 2010). In the balanced curriculum, both the subject content and pedagogy have similar density and scope. Babygeya (2006) argues that subject content knowledge is essential and therefore the scope and coverage is important in empowering individuals with knowledge and skills. He further argues that schools should provide rich knowledge and skills among students to empower them later in their work, and that teacher's professional identity is connected to richness in subject content knowledge. In these arguments, the intended requirements are competencies among teachers. To extend the scope and density of content knowledge and skills among teachers and students, the adoption of innovations in education from other countries is needed to enrich the local curricula (Cheng, 2001). This means innovations help in improving the present curriculum and makes it fit the intended purpose. This is acknowledged in the fact that countries are not in isolation, but in a fast changing world; hence, regular innovations of the curriculum are considered important in improving the quality of education (Meena, 2009).

In education, raising the academic performance or achievement of students in their various subjects is taken as meeting the requirements. Raising academic achievement refers to meeting the requirements in examinations (Malekela, 2000). This can further be understood as attaining high capabilities required in society (Hakielimu, 2007). To succeed in raising academic achievement, the provision of education is mainly centred on the teaching force (Sumra and Rajani, 2006). Research shows that teaching is the strongest school determinant of the quality of education (UNESCO, 2004; Dembélé and Lefoka, 2007). Teachers are reported to affect students' achievements in different ways (Trigwell and Prosser, 1996; Zhang, 2008), and in most Sub-Saharan African countries the students' learning depend heavily on the quality of the teaching force (Sumra and Rajani, 2006; Dembélé and Lefoka, 2007).

Studies show that teaching in schools is conceived to vary across a range of performance. Dall'Aba (1991), in studying university teachers, classified teaching into the following categories: presenting information, transmitting information, illustrating application, developing concepts and principles, exploring ways of understanding and bringing about conceptual change. Kember (1997), reviewing papers from 13 different studies on academic conceptions of teaching, identified five categories of teaching: imparting information,

transmitting structured knowledge, student-teacher interactions, facilitating understanding and conceptual change. Similarly, Samuelowicz and Brain (1992), analyzing data from university academic teachers, identified five categories of teaching: imparting information, transmitting knowledge and attitudes, facilitating understanding, changing students' conceptions, and supporting students' learning. The conceived performances in the classifications differ in levels and strength. Presenting, transmitting and illustrating represent teaching at lower levels, where the quality of learning is expected to be lower and where requirements in terms of high skills and competencies cannot be attained.

The conceptions can locate teaching especially in Sub-Saharan African countries at a lower level scale due to the many challenges schools face. Teaching in these countries is considered to be lecture-driven, commonly called 'chalk and talk' due to large classes and few resources (Dembélé and Lefoka, 2007). These kinds of teaching are reported to place the students in a passive role, limiting their activities in class to memorizing facts and reciting them back during examinations (Malekela, 2000; Wedgwood, 2005; Hakielimu, 2007; Kellaghan and Graney, 2003). On the other hand, the kind of teaching force available in schools is also reported to be ill-prepared (Wedgwood, 2005; Bedi and Sharma, 2006) and de-motivated (Nomba and Nkumbi, 2008). From these challenges, what capabilities can be acquired in such teaching? Can the societal requirements be met? Definitely teaching using the lower categories of imparting and transmitting could result in low competencies.

Achieving quality in education therefore refers to providing relevant knowledge and skills to students (Fraser, 1994). Relevancy means meeting the required needs of people in societies (Hakielimu, 2007). Although the term relevancy sounds tricky and vague, (Sallis, 2002) it is the individual and society who determine the relevancy of the knowledge and skills provided in schools. Thus, innovations which are appearing in the world stand as new requirements and have to be integrated into existing curricula to increase the relevancy of education.

In conclusion, this section has discussed the quality of education in relation to meeting societal requirements. Generally, aims stand for the requirements that education has to achieve. At school and classroom levels, the requirements are in the form of knowledge, skills and competencies or capabilities: thus, high students' achievements can be used to describe quality of education. But how can we attain high students' achievements? Definitely it is through quality in teaching and learning processes. Hence to meet the requirements of society, the curricula covered in teaching have to include relevant information that is needed

in society. Hence a balanced curriculum that includes both theory and practice is considered important towards attaining quality.

### **3.2.2 Quality of education in the transformation perspective**

The main interest groups in education are students, whose knowledge, skills, attitude and capabilities are developed through the processes of teaching and learning (Parri, 2006). In other words, education is a development process of individual students to enable them to acquire knowledge, skills, attitudes and capabilities. Transformation is the notion taken to mean development of an individual and in schools a qualitative change in a learner. Teaching the curriculum is a means of change aiming at equipping students with knowledge, skills, attitudes and capabilities that enable them live and work in societies (Ng, 2009). In this case, the terms reformation, reshaping, growth, enhancement and empowerment are used synonymously.

In section 3.1.2 above, Harvey and Knight (1996) described transformation using ice as a metaphor when subjected to a changing temperature. In education transformation is different from this metaphor. It is empowering individuals with new knowledge and skills. It refers to qualitative changes that not only apply to physical changes, but also to cognitive development and thus a social change (Parri, 2006).

As a social change, transformation is an interpersonal negotiation between individuals or groups of people (Lomas, 2002; Eckel et al, 1998). This means it is a personal relationship that requires individuals to demonstrate their position for social identification (Ng, 2009). Moreover, it is a mutual relationship in which people are recognized from their culture and membership in their societies (ibid). Thus, social transformation is a process that enables an individual to change from an attributed status to a new achieved status. Attributed status, according to Eckel et al (1998) is the social status adopted at birth while achieved status is based on knowledge, skills, abilities, and the capabilities an individual acquires through learning.

Being a social phenomenon, transformation is considered a positive change of an individual or system (Lomas, 2002). It is important to note that, the education programs in different countries take responsibility for transforming people for the benefit of their society (Nayar, 2004). Transformation in education, therefore, is a form of enacted change planned and intended to bring significant changes in society (Norris, 2001). In this case, education is considered an instrument for social change that empowers individuals to improve their own societies. Every professional in society, including teachers, has a role to play in order to bring

about the desired changes. Improving the quality of education is thus a social change that countries have to aim at (Shahzad, 2007; Wedgwood, 2007). Proposals to improve the quality of education are based on the assumptions that schools are failing to meet the requirements of society and hence transformation is needed (Bedi and Sharma, 2006).

In schools, transformation refers to the empowering of the student through teaching and learning. It means that learners are encouraged and enabled to achieve appropriate learning outcomes. Empowered individuals are better equipped to understand realities and because of that more enabled to change their society (Ng, 2009). In this case, teaching and learning is a process of adding qualitative values to individual learners (Harvey and Green, 1993). Empowerment, therefore, is a typical notion of quality that considers education as a force for change in an individual.

Transformation also refers to the enhancement of institutions to enable them to provide better outcomes (Lomas, 2002). Enhancement in this case means creating an enabling environment for learning to take place in schools. The literature shows that schools in most sub-Saharan countries are faced with a number of challenges where transformation is needed (Bedi and Sharma, 2006; Wedgwood, 2005, Hakielimu, 2007, Komba and Nkumbi, 2008). Ill-prepared teachers, overcrowded classes and lack of teaching and learning materials are areas where enhancement is needed to improve quality. According to Ololube (2006), one step to improve the quality of education is to recognize the challenges facing our schools and transform the processes towards meeting them. In some cases the challenges are rooted in the way societies are organized (Wedgwood, 2007): thus transformation may extend towards enhancing society. For example, in nomadic societies it is difficult to locate a school, as families tend to shift places from time to time. Under such circumstances, it is not surprising that schools can continue to be not attended and leave children from these societies uneducated (Hakielimu, 2007). To be able to educate their children, boarding schools are appropriate.

In addition, to change the perceptions in these marginalized societies; education is needed to empower students with knowledge, skills, attitudes and capabilities that will help in transforming their societies (Ng, 2009). Changing a society is not an easy task; it needs to uncover the drawbacks that contribute to resisting change (Peters, 1992). Transformation, therefore, starts in schools; with teachers being the main implementers of the curriculum. Their ability to offer competences and useful knowledge and skills to students eventually brings positive changes to the whole of society.



While thinking of using teachers as means for change in society, the literature shows that the situation in most developing countries is not promising (Bennel, 2004). Teachers have been reported to face a number of challenges which hinder their effective working (Bedi and Sharma, 2006; Shahzad, 2007). The challenges have led them to lose their work morale (Davidson, 2006; Komba and Nkumbi, 2008). Motivation in terms of housing, improved salaries and other compensation is needed to make teachers become more motivated in their work. Transformation in terms of professional development can also help in rising teachers' morale. Teachers need in-service courses to improve both their academic and pedagogic knowledge (Komba and Nkumbi, 2008) and share experiences of existing knowledge and skills with colleagues. Some teachers need upgrading courses to enable them to acquire new knowledge at a higher level of education for their expertise and promotion (Wedgwood, 2007).

Despite its ability to bring changes, transformation is a process which is difficult to measure. Saddon (2000) argued that measuring quality is misleading. It means that one has to relate to quantities or physical entities like scores that are used to measure students' achievements in schools. Peters (1992), on the other hand, argues that if it is impossible to measure the changes, then it is also impossible to improve quality. This again brings in the necessity of measuring quality in order to be able to improve.

In summary, using transformation to describe quality of education, different notions can be employed. The term developmental process, enhancements and empowerment are found suitable in the description. However, when used, the notions need to be defined to bring the intended contextual meaning.

### **3.2.3 Quality of education in the excellence perspective**

In education, the term excellent is used to praise individuals who attain outstanding activities. When it is used, it motivates the striving for high standards and sets a competitive state (Manyanga, 2007; Mosha, 2000). Terms like very well, wonderful and good are also used in the same function. Excellence is the term that refers to high standards of goodness (Parri, 2006). The definition sets competitive goals to schools and individuals to achieve better results.

Harvey and Green (1993) described quality from the excellence perspective in two aspects. First, quality is a degree of excellence on judging worth, and second, it is used as a position on an implied scale. To judge a school as excellent means applying outstanding worth or standards in terms of its functioning and that the school is positioned high in relation to others. Defining quality of education in

this way is to assume it exceeds the set standards on a given scale (Mosha, 2000). This is the functional way of defining quality, and hence the definition has to include descriptive features (Ololube, 2006).

In terms of goodness in performance, quality of education refers to excellence in performance through established acceptable criteria and standards of good performance (Mosha, 2000). However, standards are social and dynamic, they change with time and societies and hence they become value-laden (Sallis, 2002). In different countries, standards are set by accreditation authorities and are either absolute or relative, which demands agreement before being used (Mortmore and Stone, 1990).

In schools, achievements in examinations (Malekela, 2000) and students' capabilities (Hakielimu, 2007) are used as standards to assess quality. High achievements refer to excellence in a program, a school or an individual learner (Manyanga, 2007). In other words, high achievements are used as standards to improve or upgrade the performances of individuals, both teachers and students in institutions (Lomas, 2007). But how are the examinations valid to describe the quality of education? Individual capabilities, on other hand, are used as standards to describe the quality of individuals in societies. What abilities do individual students possess? What are students able to do? These questions can lead to making capabilities standards to assess the quality of education.

In conclusion, using standards to assess the quality of education has been criticized, especially when performance is led to conform to the set standards (Lomas, 2002; Parri, 2006). If, for example, every student acquires high scores, then examinations lose the status of being standards (Hakielimu, 2007). This calls for the employment of a variety of methods. In section 3.4 a discussion of different methods that can be used to measure quality in education is presented.

### **3.3 Quality of secondary school education in Tanzania**

Different countries in the world acknowledge that the quality of secondary school education is a pillar for national development (Gropello, 2006; Bedi and Sharma, 2006; Shahzad, 2007). In the Secondary Education in Africa (SEIA) report, improved quality of secondary school education is considered a key element for the growth of economy in sub-Saharan Africa. It is through secondary school education that nations build skills and competences among young individuals to serve in various sectors of the economy. In Tanzania, too, despite the challenges the country is facing in education, the quality of secondary school education has been set as a priority (Sumra and Rajani, 2006). At different times, the country has made clear policy documents and programs to

promote quality in secondary school education (URT, 1995; URT, 1998; URT, 2000; URT, 2004). In these policies the country has the ambition to create a strong and competitive national economy through the education provided in secondary schools (Wedgwood, 2007). Different strategies are therefore implemented to ensure that secondary schools offer quality education. In the proceedings of this chapter, secondary school education in Tanzania is discussed in relation to the challenges it faces and possible ways to improve it.

### **3.3.1 Secondary school education alongside societal requirements**

Since 2004, Tanzania has embarked on implementing the secondary education development program (SEDP) aiming at revamping the deteriorating quality of education in secondary schools (Makombe et al, 2010). The ambitions in the program are improving the relevancy of education, increasing access through building more schools and classrooms, recruiting more teachers, improving the quality of existing staff and improving the management and governance of schools (MoEVT, 2010). During the first phase of the program (2004 – 2009) promising achievements were seen in terms of increased enrollment and increased efforts in the construction of schools and classrooms. However, a number of challenges, such as lack of teachers, poor quality teaching force, poor teacher motivation, lack of teaching and learning materials, inadequate teacher professional development programs and poor funding have remained unaddressed thus affecting the quality of secondary school education negatively.

Regardless of the unresolved challenges, the country and its societies still have expectations out of secondary school education. The country expects the schools to provide specific sets of competencies and skills to enable students to become active citizens in their society (URT, 1995). Parents, on the other hand, are struggling to find a secondary school for their children to acquire knowledge, skills and competence that will improve their lives (Wedgwood, 2007) and enable them to actively participate in the development of the economy of the country (World Bank, 2005). These considerations and expectations are partly included in the aims of secondary education in Tanzania as stipulated in the Education and Training Policy (RTP) of 1995. For example, the country has these ambitions that the secondary school education is aimed at:

Enhancing the development and appreciation of national unity, identity, personal integrity, respect for and readiness to work, human rights, culture and moral values, traditions and civic responsibilities and obligations;

Inculcating among students a sense and ability for self-study, self-confidence, and self-advancement in the fields of science and technology through the provision of opportunities for acquisition of knowledge, skill, attitude and understanding in prescribed or selected fields of study. (URT, 1995)

From these aims, promotion of the country's social unity, development of competencies and building a sense of self-reliance are the needs or requirements of the people in Tanzania (Benson, 2005). To fit in these requirements, the aims are further translated into different subject areas like natural sciences, mathematics, languages and social sciences.

Despite these good intentions, there are still unanswered questions as to whether the aims are achieved and whether secondary school education is appropriate for the intended purposes of the country (Malekela, 2000; Hakielimu, 2007; Wedgwood, 2005). From the country statistics, the achievements of the students in both lower and upper secondary schools are deteriorating (MoEVT, 2010). This has also affects the enrollment in universities and other vocational institutions, as achievement in secondary school education is projected to decline more. According to Wedgwood (2007), universities and teacher colleges sometimes need to lower their entry points in order to enroll enough students. As a result, graduates from universities are also reported to lack the necessary competences. A study by the World Bank conducted in 2004 revealed that Tanzanians are losing out to qualified citizens from other countries who seek employment in the country (c.f. Wedgwood, 2005). This has further been associated with the education and training system not meeting the demands of labor market (Sumra and Rajani, 2006).

At different times and forums people ask questions. What are the requirements for secondary school education in Tanzania? Are the values included in the aims still requirements? Or can we change our focus to making solving the challenges of education become the new requirements? These questions need the attention of policy-makers, teachers and researchers as they are building up the dilemma among people in the country.

Attempting to realize the dilemmas, the country has introduced a collaborative strategy, where different parties are involved in finding solutions for the quality of secondary schools. In this realization, a number of policy documents have been introduced calling for collective responsibility in promoting the quality of education, including secondary school education in the country (URT, 1995, 1998, 1999, 2004). In each policy document statements of intention are provided, showing the strategies for improving secondary school education as discussed below.

The Tanzania development vision 2025 is the main policy guiding the development of the country. In this vision, the country targets a high quality livelihood for all people, which is expected to be met through the realization of improved quality of education at all levels, including secondary school education (URT, 1998). In this case, the eradication of illiteracy to meet the high demand for trained human resources is a requirement for the development of the nation. In the vision, education is treated as a strategic agent for mindset transformation, and for the creation of a well-educated nation (Wedgwood, 2005). It calls for individuals who are sufficiently equipped with knowledge, who are needed to competently and competitively solve the development challenges facing the nation (URT, 1998 p.5). In this light, the education system needs to be restructured and transformed qualitatively, focusing on promoting and giving a high standard of education at all levels. This can be summarized as expanding access and improving quality.

As a result of this vision, access has increased, as shown in chapter two. The increase is not in line with the quality of education (Hakielimu, 2007; Wedgwood, 2007). More schools are being constructed but they have insufficient numbers of teachers and other teaching resources like books and laboratory equipment because of the low budget allocated to education (Hakielimu, 2007). The low achievement of vision 2025 can be clearly observed through examinations, where the results are deteriorating year by year, as was shown in chapter one.

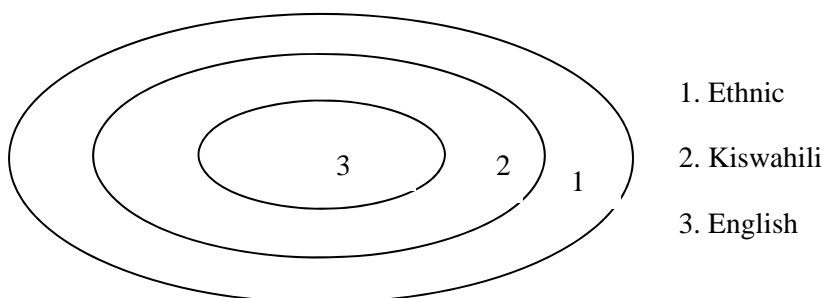
The national strategy for growth and reduction of poverty (NSGRP) is another policy that has been introduced towards improving the quality of the living among people in Tanzania (URT, 2000). In this document, education is identified as one of the strategies for combating poverty with the following strategies: improving the quality of education, supporting children from poor families to access education, encouraging active participation from the private sector in the provision of education, allocating a greater portion of the budget to education and enhancing greater community participation in supporting education (URT, 2000; Galabawa and Narman, 2004). Beside these strategies, implemented to eradicate poverty, Tanzania has not gone far in this struggle. It is estimated that poor people make up around 50% of the population (Wedgwood, 2005) and 36% are hard core poor as defined in the NSGRP.

In relation to secondary school education, the implementation of the policy has inclined towards expanding access (Hakielimu, 2007). The country initiatives are on increasing financial support and lowering school fees; to allow children from poor families to access secondary school education (Wedgwood, 2005).

This has increased the chances of marginalized groups accessing secondary school education in Tanzania. But the attempts are adding to the challenges facing schools.

The main policy for provision of education in the country is the education and training policy (ETP) of 1995. This is the guiding document in the provision of education in Tanzania. In this document emphasis is on improving the quality of education (URT, 1995). It is further stated that quality control and assurance, including curriculum review, examination reforms and monitoring and evaluation are means to improve quality (p.xiv). With regard to the teaching force, Tanzania has the ambition of an even distribution of teachers. However, the idea is only a blueprint as the realities are still quite the opposite. A great imbalance in the number of teachers exists between rural and urban schools. Women teachers, for example, can be found more in urban than in rural areas, where marriage may apply as a reason. Moreover, the document restricts teachers holding a diploma teaching above secondary grade two (p. 41), which is also in contradiction of reality. It is even worse when teachers who received only a short training (given a temporary license) and those with general degrees are found teaching in secondary schools (Hakielimu, 2007; Wedgwood, 2007). With this, the questions arise to whether the profession and level of education of the teachers' are still requirements for quality in secondary school education Tanzania.

In the ETP document, the medium of instruction is set to be English language, which is again a challenge to both teachers and students in secondary schools (Senkoro, 2004; Rubagumya, 2001; Qorro, 2006). Besides being the language of instruction, English does not feature to a great extent in the education system when compared to Kiswahili. English takes the third rank, and hence its power in society is low when compared to others, as shown in the next figure.



**Figure 2: Language ranks in Tanzania (Adopted from Rubagumya, 2001)**

In the figure the inner circle represents the elite, who have a repertoire of all three languages. In circle 2 are those who can speak ethnic languages and Kiswahili, while those in the outer circle speak only ethnic languages. As shown in the figure, the influence of other languages has great implication for mastery of English. This has led to the fact that low mastery of English among students and teachers greatly inhibits the quality of teaching and learning in secondary schools (Roy-Campbell and Qorro, 1997; Brock-Utne and Holmarsdottir, 2004; Senkoro, 2004). But we can still ask ourselves whether English is needed in Tanzanian society. In other words, is English language a requirement for teaching and learning in secondary schools?

To sum up this section, different questions have been asked in relation to the challenges and requirements of secondary education in Tanzania. However, the ending of the section does not provide any answers to these questions. The questions have remained only as working hints within ongoing programs towards improving the quality of education in schools. Different actors in secondary school education, including teachers, researchers and policy makers can find answers to any of the questions.

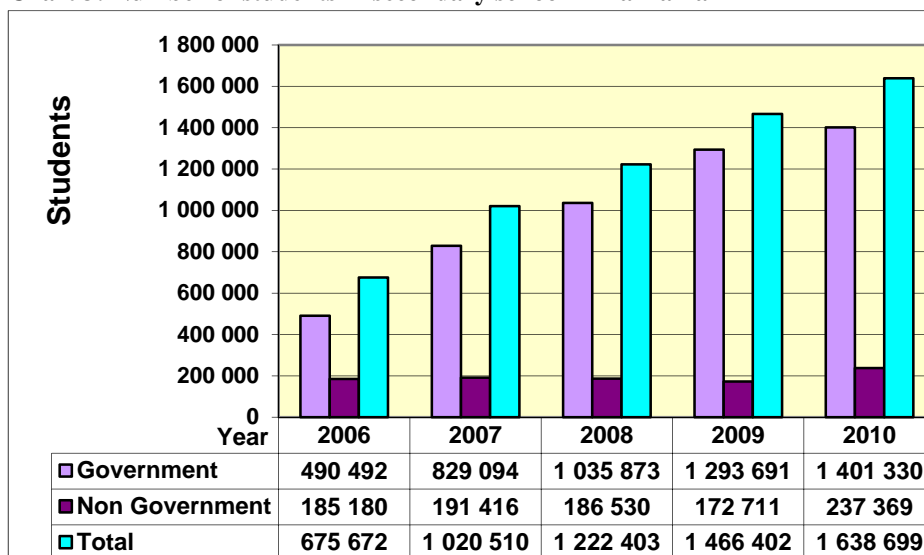
### **3.3.2 Transforming secondary school education in Tanzania**

Secondary school education is considered pivotal in the development of the economy in Tanzania (Koda, 2007). Experience shows that on one hand, the majority of the work force possesses at least secondary school education (Malekela, 2000). Higher education and other professional training institutions, on the other hand, depend on outputs from secondary school education. Moreover, primary schools receive teachers who completed secondary education (Wedgwood, 2007; Hakielimu, 2007). These make secondary school education an important link to other levels of education as well as to the labor market. As it

has been previously discussed, these fundamental roles have made the demand for secondary education to increase among stakeholders in the country. From the increasing demand, improving the quality of secondary school education in Tanzania has to be a priority.

Different strategies have been on the fore in order to improve secondary school education. As it has been pointed out before, in 2004, Tanzania introduced the secondary education development program (SEDP) for the aim of improving both access and quality. In introducing SEDP, two basic reasons were considered important. First is the need for creating equal opportunities including the marginalized groups and second is the increasing demand in the employment system required more trained and qualified labor of at least secondary school education level (URT, 2004). Since the inception of SEDP, the importance of secondary school is increasingly being recognized in different sectors and units (Makombe et al. 2010). The demand for secondary school education has, for example, grown among different interest groups in Tanzania. As seen in the chart below, government and community participation in the construction of schools and classroom has increased and thus the number of students enrolling in secondary schools has also increased.

**Chart 3: Number of students in secondary school in Tanzania**



Source: MoEVT, Basic education statistics in Tanzania, 2010

Chart 3 shows the gradual increase in the number of students in secondary schools, which can be seen as an indication that awareness has also increased among communities in Tanzania (Hakielimu, 2007). From this increase,



secondary school education therefore is increasingly becoming a prerequisite for quality human life, labor skills and economic productivity in Tanzania.

Despite the observed growth in the secondary education sector in Tanzania, the academic situation in schools is the opposite. The achievement among students in examinations is increasingly poor due to the challenges outlined in chapter one. To remedy the situation different forms of transformation to this level of education are needed. This section discusses transformation in the form of effective teaching, professional development, teacher motivation and strengthening education for self-reliance.

### *Effective teaching in secondary schools*

In Tanzania, as elsewhere in the world, teaching in schools is influenced by different factors, including the technology. From the influence of fast changing technology, knowledge and skills are also changing to affect teaching in schools. These changes bring about the need to revise the curricula and teaching methodology so as to improve effectiveness in teaching and to offer the required knowledge and skills. Effectiveness in this sense is related to excellence discussed in sections 3.1.3 and 3.2.3. The relationship is from their high level of accomplishment of the set tasks. According to Zhang (2008) an effective teacher possesses strong cognitive skills and desirable personal characteristics, knowledge of pedagogy and subject, and skillful classroom operation. The effective teacher was conceptualized in six different scales, as shown in the table below.

**Table 2: Effective teacher inventory**

Scale	Sample item
Qualification	Excellent content and pedagogical knowledge
Preparedness	Being prepared and organized
Personality trait	Good sense of humor
Relationship with students	Knows students and their characteristics
Motivation	Interest in teaching
Classroom practices	Able to stimulate and handle students' questions

Source: Modified from Zhang, L. (2008).

An effective secondary school teacher from the table therefore has to possess the required qualities to be able to handle students from their varying characteristics. Teachers need to be well prepared, with a personality that is approachable (Brisk, 2006). They have to use a variety of methods to enable students to easily acquire knowledge and skills. Indeed the qualities for an effective teacher are ideal in Tanzania and other sub-Saharan countries as the reality is quite the opposite.

Studies in sub-Saharan countries show that teachers are not effective in their teaching (Davidson, 2006; Bennell and Mukyanuzi, 2005; Chireshe and Shumba, 2011). Dembélé and Oviawe (2007) argued that most teaching in African classrooms is not effective, as are characterized by rigidity, ‘chalk and talk’, teacher dominance and lectures (see also Dembélé and Lefoka, 2007). Similar findings were also found by Sifuna (2007), who stated that lectures are the dominant method of teaching and students in Tanzania and Kenya hardly receive any attention from their teachers, and hence learning becomes difficult (see also Chimbolo, 2005). Dominance in using lecture is not only that teachers lack knowledge of other teaching methods but also because of other factors like lack of teaching and learning materials which result into combining classes and overcrowding.

Poor training is also a factor for teachers being not effective in teaching. Despite the different initiatives to improve the quality of education in Tanzania, and with the low economic level, training of teachers needs to improve. This is because some teachers in secondary schools are claimed to be ill-prepared and lacking in variety in methods of teaching (Wedgwood, 2005; Sumra and Rajani, 2006). Initiatives to improve the quality of teaching in secondary schools have to start from improving teacher education. Teacher training colleges and university programs have to include the effective teaching scales described above so as to equip trainees with the required qualities of the profession.

### ***Teacher professional development***

In Tanzania, the proportion of under-qualified teachers remains a challenge in terms of the quality of education and secondary school education in particular (Wedgwood, 2007; Hakielimu, 2007). As discussed earlier, the government has launched short training courses for secondary school leavers ‘temporary licensed’ who aspire to be teachers so that they could increase the number of teachers needed and fill the shortage of teachers in the country.

According to Hakielimu (2011), the program has helped to supply teachers, especially in newly established community secondary schools, but what was not taken into consideration was the fact that the short courses that were offered

could not actually guarantee production of competent teachers, especially if the ones taking the course did not actually perform well in their upper secondary examinations (see also Wedgwood, 2007). This program, therefore, has increased the number of teachers in secondary schools who are ill-prepared and lack standards of teaching (Hakielimu, 2007; Mmari, 2001).

Despite that the introduction of form VI leaver teachers commonly called 'licensed teachers' has been criticized for affecting the quality of secondary school education in Tanzania (Hakielimu, 2007; Makombe et al, 2010), but an attempt to replace all poorly trained teachers is not a solution, as newly employed teachers are also inadequately prepared to face the challenges in school and in teaching (Wedgwood, 2007).

Furthermore, with changing technology, new innovations are emerging to affect the school curriculum contents and thus even the said prepared teachers still need to learn when they begin teaching (Komba and Nkumbi, 2008). Moreover, since teachers in Tanzania vary greatly in terms of preparation, experience and expertise, they also vary greatly in terms of their professional development needs. Schools and the country, therefore, need to retrain and develop the teaching force they have in place. Teacher professional development, therefore, has been viewed as a promising intervention for transforming the quality of in-service teachers (Fishman, et al., 2003; Goldschmidt and Phelps, 2010).

This argument is also in line with Bozkurt et al (2012), who argued that in-service training has been viewed by many countries as the key element in strategies to raise the quality of education. In-service teacher training programs enable teachers to become highly qualified by improving, increasing and advancing their knowledge through a better understanding of effective teaching strategies (ibid). The programs can enable in-service teachers to become successful in their profession and be able to develop professionalism and skills of lifelong learning. The programs can also increase their adaptation to innovations and improve their performances to meet the students' needs (Buczynski and Hansen, 2010). In these lines of thinking, teacher professional development is considered a long term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession.

According to Buczynski and Hansen (2010), in-service teacher professional development means the occupational instructions intended to equip teachers with tools and resources necessary to provide quality teaching. It signifies a process aimed at promoting professional knowledge, where personal experiences are

uncovered and shared (ibid). Dembélé and Lefoka (2007) also defined professional development as ‘pedagogical renewal’, meaning planned qualitative change towards desirable teaching practice that ensures the achievement of the expected learning outcome. The qualitative change in this definition is the process in which teachers’ knowledge and skills, understanding and commitments are developed and enhanced.

But with the lack of teachers in secondary schools in Tanzania is pedagogical renewal possible? How can it be done? It is almost impossible to take back to colleges and universities all teachers that are conceived poorly trained. Professional development programs in the form of workshops, seminars, subject panels, and short courses are focused on increasing content and pedagogical knowledge (Goldschmidt and Phelps, 2010). The outcome from such training is improved practice and expertise among teachers, although differences in modes and program of delivery may also exist. Depending on the organizations, teacher professional development courses are offered at schools, teacher colleges or resource centres. Resource centres are places where teachers meet, access reading and teaching and learning materials and discuss issues related to their profession (Wort and Sumra, 2001).

School based professional development programs include team teaching, coaching and mentoring which are done in schools (Hardman, et al., 2012). Subject panels can also be done at school or in the resource centres. In teacher colleges in Tanzania, professional development courses are mainly in the form of short courses, while in resource centres seminars and workshops are conducted. Studies shows that school-based teacher professional development courses are more promising than college and resource centre courses in effective knowledge delivery and they expose individuals to more competence and direct practice in teaching while at work (Hardman, et al., 2012; Goldschmidt and Phelps, 2010; Lewin and Stuart, 2003). These are mainly face-to-face activities, where a coach or mentor and the teacher sit together and discuss the intended behavior change (Dembélé, 2005). Their extended advantage is that they don’t draw out teachers from their work stations so they are easy to manage than college programs. School-based program are also conceived cheap than teacher college-based program because of the need to provide in-class support from trained mentors (Hardman, et al., 2012). In teacher resource centres or clusters, professional developments are offered in the form of seminars, workshops and subject panels where specialists from teacher training colleges or universities are invited to offer training (Komba and Nkumbi, 2008). These are more formal than school-based courses, where teachers are trained through different programs aimed at improving content and methods of teaching (Wort and Sumra,

2001). However, they are supported by different informal practices, including debate and focused and reflective discussion aimed at sharing experiences and improving teacher quality (Komba and Nkumbi, 2008). In terms of practical matters these programs need preparations, management and funding.

In view of their importance, teacher professional development programs in Tanzania seem to be a forgotten agenda and are given less attention (Wedgwood, 2005). Despite the emphasis on the education and training policy documents (1995), the implementation is ad-hoc, and few teachers are involved, making the impact of such training invisible (Komba and Nkumbi, 2008). Most of the workshops and seminars depend heavily on donor or government funding (ibid). Because of the poverty in Tanzania, it has been difficult to regularly conduct workshops and seminars for teachers and other school based programs are still new to country education system. In addition, different programs that were introduced for teacher professional development ended towards the end of the host project. The reasons include lack of funding, and preparations to mainstream them in the school programs as the curriculum have been rigid to accommodate such innovations.

Examples of the programs practiced include the Primary Education Program (PEP) aimed at improving primary school teaching. According to Kamwela (2000), PEP was aimed at improving the quality of primary school classroom teaching and learning. Among the main focus of the program was development of Teacher Resource Centres (TRC), in-service teacher training and capacity building among teachers. The same idea was adopted by the Primary Mathematics Upgrading Project (PMUP), and the District Based Support to Primary Education (DBSPE), where the issue of teacher support to production of teaching and learning materials was emphasized. The programs showed strong support for teacher professional development, but all the plans were shelved at the end of each program because they lacked funding and possibly lacked commitment among the key actors towards sustaining and mainstreaming through the entire school and curriculum systems. Because of poor sustainability to the PEP and DBSPE, the TRC buildings for example, are currently rarely used on professional development, and instead in some places they have changed into normal classrooms and offices for ward executive officials.

It is important to note that innovations cannot be sustained unless different key actors are collectively involved in the process of change. According to Komba and Nkumbi (2008), five different key actors, namely the government, teacher institutions, local authorities, schools and teachers, have to play their roles to ensure that professional development is sustained. The government, through the

Ministries responsible for education, has the role of providing guiding policies and finance to run the training. Teacher training colleges and universities have the role of identifying trainers, developing modules and other training materials and conducting the training of teachers. Local authorities have the role of supporting the training by providing the necessary resources including training centres, whilst schools have to perform supervision, monitoring and evaluation of teachers in their daily teaching. The teacher is left with the role of being proactive and motivated in seeking opportunities for professional development. However, these roles need commitments, time and resources. It is important that professional development programs become a priority in the country's plans.

In summary, it is important to note that there is not one form or model of professional development better than all others and which can be implemented in any institution, area or context. Teachers, educators and planners must evaluate their needs, and practices in order to decide which model would be beneficial to their particular situation.

### ***Improving teacher motivation***

Teachers in Tanzania, as elsewhere, are considered the most important determinants in the provision of quality of education in schools (Davidson, 2006). They have the pivotal role in promoting learning outcomes and hence their motivation are considered important (Bennell and Mukyanuzi, 2005; Bennell, 2004). As such, governments have a responsibility to ensure that teachers perform to the best of their abilities. To do this, governments must pay attention to a number of factors that affect teachers' performance. In schools, learning outcomes cannot be achieved if teachers are inadequately motivated (Ololube, 2006). A well-motivated teacher is expected to promote students' learning, and hence improve performance (Chireshe and Shumba, 2011). But what do research studies say about motivation in schools?

A number of studies have been carried out in different parts of the world and reveals that teacher motivation is an important factor of quality of education, as it is directly related to student performance (Ololube, 2006; Michaelowa, 2002; Alam and Farid, 2011). Shann (2001) further argued that teacher commitment depends on motivation and job satisfaction. In this case, teacher motivation is a predictor of the commitment and effectiveness of an individual (ibid). Teacher motivation in Africa and Sub-Saharan Africa in particular, remains a challenge. Different issues like high workloads, large classes, lack of professional development training, poor living and working conditions, low salaries and poor policy and administration have been raised as affecting teacher motivation

(Ololube, 2006; Chireshe and Shumba, 2011; Bennell and Mukyanuzi, 2005; Davidson, 2006; Komba and Nkumbi, 2008).

Although motivation is a widely studied phenomenon, yet it does not have a unique meaning. According to Bennell and Mukyanuzi (2005), it is a broad notion that is open to varied interpretations. Ngimbudzi (2009) defined motivation as ‘individual determination of effort towards achieving set goals in an organization’. It is the term referring to drives or forces for voluntary actions directed towards achieving set goals. Bennell (2004) also defines motivation as ‘the psychological processes that influence individual behavior with respect to the attainment of workplace goals and tasks’. These have led to a definition that teacher motivation is the internal and external factors that drive an individual toward effectiveness in teaching. Effectiveness is further referred to as the ability to create integration between the physical, intellectual and psychological interest of the learners within the content of a given subject (Mwaimu, 2001). This definition considers motivation as a factor in promoting effective teaching among teachers in schools.

In Tanzania, teacher motivation seems to be a neglected issue in the education plans (Davidson, 2006). Attempts to improve classroom practice and learning outcomes in schools are assumed to be unsuccessful because teacher motivation is ignored (Bennell and Mukyanuzi, 2005). Insufficient teaching materials are a major disincentive to the profession. Trying to perform teaching without the appropriate materials is very frustrating to teachers, as it may lead them to start thinking about leaving teaching and looking for other jobs. Due to this implication on teacher retention, the provision of teaching materials is recommended as one of the strategies for keeping teachers in the profession (Hakielimu, 2011). Improvement of conditions of service for teachers is a promising way of increasing teacher morale, making the profession more attractive, enhancing retention of teachers, and improving the quality of teaching and learning.

Likewise, the lack of housing in schools makes teachers rethink their profession and perhaps look for other alternatives (Hakielimu, 2011). When teachers are employed and posted to teach in various schools, it is expected that the government can provide housing for their accommodation. Instead, they find few houses to share and sometimes traditional houses which are below standard (Komba and Nkumbi, 2008; Makombe et al. 2010). In most cases, they are offered nothing and are forced to rent accommodation themselves (Hakielimu, 2011). According to a study by Hakielimu, it is estimated that in the past five years of SEDP only 4742 out of 89927 (5%) teachers’ houses were constructed

and as a result 1232 out of 9226 teachers that were posted to schools in 2011 left the profession because of lack of housing (Hakielimu, 2011). In this case, housing is an important incentive for motivating teachers, particularly for new teachers, and those teaching in rural schools. Where teachers stay far from the school, they are likely to spend more of their time on traveling to schools, and this is often to the disadvantage of their school work and their learners as they usually arrive late.

Other factors that are reported to contribute to teacher de-motivation include the unpaid salaries, allowances and uncompensated longer working hours (Mwaimu, 2001; Davidson, 2006). Teacher compensation is a critical issue which the government needs to address it. Teachers may be compensated through salaries or other cash payments and other special assistance like training, shelter and transport. In secondary schools, some teachers have unpaid salaries caused by weak communication between schools and paymaster general, resulting in delay in payment especially among newly employed teachers. Another factor affecting teacher motivation is the poor promotion scheme, which has led to several attempts to demonstrate against the government (Ngimbudzi, 2009). In Tanzania, teachers through their trade union have many times raised complaints about the scheme used in their promotion as being ineffective. As discussed above in some cases the challenges have resulted in teachers leaving the profession for greener pastures. Clearly low motivation is greatly affecting the students' learning in schools, as reflected in the different examination results outlined in chapter one. If teacher motivation is not improved, the implementation of school and classroom programs is meaningless (Davidson, 2006).

It is a pity that this most important profession in the country has not been given the attention and support it deserves in terms of motivation (Hardman et al, 2012). If salaries are not paid on a regular basis, teachers will not teach and instead will continue leaving the profession (Davidson, 2006). To improve the quality of secondary school education and teacher effectiveness in Tanzania, motivation is not an option, but rather a central issue that needs to be prioritized (Ngumbizi, 2009; Komba and Nkumbi, 2008). Motivation in the form of reduced workload by training more teachers, regular professional development, improved work and living environments have to be addressed in different programs for improving teacher quality as well as the quality of secondary school education (Bennell and Mukyanuzi, 2005).

In my view, if teachers are well paid and given housing in or near schools, insured for health services, then commitment in work will be seen and the quality of education is likely to improve. Therefore, an established teacher



compensation system helps to stabilize the teaching force in schools, decreases teacher attrition and increases recruitment. The absence of teacher motivation in schools therefore leads to frustration, attrition and absenteeism by teachers (Hardman et al, 2012).

### ***Emphasis on education for self-reliance***

Immediately after independence, the major efforts in Tanzania education systems were to increase the middle and high levels of manpower with the ambition to occupy the positions left by the colonial masters. The interventions led to increased opportunities in secondary school education (Höjlund, Mtana and Mhando, 2001). However, the focus on manpower development was not accompanied by rapid economic growth and as a consequence serious unemployment among school leavers emerged (ibid). A re-orientation of education policy was needed and the policy of education for self-reliance (ESR) was introduced (see Nyerere, 1968b). The policy aimed at integrating theory and practice as well as relating schooling with production work. Schools were diversified to offer optional subjects like commerce, agriculture, technical and vocational subjects, with the focus of relating education and work (Ishumi and Maliyamkono, 1995). In learning, students were taught different skills and given the opportunity to practice the acquired knowledge and skills. Each school had to establish projects related to the subjects taught so as to allow practice of the theories learnt in lessons (ibid).

Despite the good intentions of the policy towards building self-reliance, it led to different interpretations among stakeholders in the country. Its emphasis started to decrease from projects management to curriculum integration. Now its implementation is fading among schools, and the poor quality of education in schools is, according to Benson (2005), associated with the failure to integrate self-reliance in teaching and learning. The current education curricula suffer in a varying degree from a lack of integration of theory and practice and a failure to address the everyday realities in classrooms (Hardman, et al., 2012). In recent years, secondary education has been criticized for producing poorly prepared individuals who cannot manage their own life, who continue depending on the support of families, and who cannot well perform their duties (Höjlund, Mtana, and Mhando, 2001; Komba and Nkumbi, 2008). Thus, the expected end results as regards self-reliance have not been achieved in the majority of schools, except for a few technical schools (Sumra and Rajani, 2006; Wedgwood, 2007). The poor achievement comes from the poor competence of graduates who are leaving schools without the basic skills for work and life (Hakielimu, 2007). As Nyerere (1968b) suggested, basic education should not be aimed only at preparing individuals for higher education, but should be a complete entity in

itself. This means education has to go beyond offering literacy and numeracy, but also produce skills for work and life (Benson, 2005). Furthermore, education should not only offer knowledge and skills that enable an individual to pass examinations, but also to acquire practical skills for work and life. This means that what skills the students took back home with them after schooling was considered important in education for self-reliance.

From the ESR policy, the quality of education was considered inseparable from self-reliance (Benson, 2005) and thus improving quality in schools was related to offering skills for work and for life. As in Ng (2009), education was inseparable from and shaped by social and political contexts. From these authors, skills for work and life were what were needed by societies from education. Hence, schools were expected to act as social and political change agents who could meet these demands. But since self-reliance is in dilemma, this study considers improving the quality of education in schools as an alternative for the provision of work and life skills. Teachers have the roles to ensure that aims are achieved in education and that knowledge and skills delivered meets the requirement of the society.

### **3.3.3 Excellence in secondary school education**

In sections 3.1.3 and 3.2.3, I have discussed the notion excellence and the way it is used in education to describe quality. The notation has been related to high standards (Mosha, 2000) and high competitiveness (Manyanga, 2007). From these definitions the notion has proved to be relative, as standards are dynamic and vary from one society to another (Sillas, 2002).

On the one hand, excellence has also been equated with high achievements in examinations (Malekela, 2000). As discussed in section 3.2.3, the standards for secondary school examinations in Tanzania are set by the National Examination Council of Tanzania (NECTA), the sole accreditation and certification body in secondary and college examinations. According to NECTA, high standards are scores A and B in individual subjects or divisions I and II if looking at the general performance of an individual (see also Wedgwood, 2007). Divisions are made up of performances where high scores in subjects leads to higher divisions. Nevertheless, the statistics on examinations have shown that, these standards have become too high for most secondary school students, as the achievements are mainly clustering around divisions three and four (see MoEVT, 2011). Furthermore, examinations have been criticized for measuring the low levels of learning of remembering and reproduction (Hakielimu, 2007). The results from examinations do not reveal the true picture of the students' achievements.

On the other hand, societies use capabilities from outputs to assess the quality of education in secondary schools (Hakielimu, 2007; Wedgwood, 2007). The question of what school graduates can do is a frequently asked among people in communities (Makombe et al, 2010; Sumra and Rajani, 2006). Capabilities in the form of the ability to fluently read and write, comprehend, analyze, ask questions and think critically have been claimed to be lacking among pupils in primary schools, which also affects learning in secondary schools. As a result, secondary school students do not demonstrate capabilities like being creative and innovative, and neither the ability to solve problems and to meet new challenges. Increasingly, they fail to show aptitudes like being reflective, self-confident, and the ability to exercise their imaginations in solving real life problems (Sumra and Rajani, 2006).

Besides the listed incapability, the issue of language of instruction cannot be ignored if secondary schools are to achieve quality. Command in the language of instruction has a great role in promoting the quality of education (Sumra and Rajani, 2006; Senkoro, 2004). Studies in Tanzania reveal that command of English, which is the language of instruction, is poor among students in secondary schools (Qorro, 2006; Wedgwood, 2007). The reason for poor ability is because primary schools pupils are taught in Kiswahili and when they join secondary schools the language changes to English. This shift affects learning, as the majorities are reported to fail to cope with the new language (Sumra and Rajani, 2006). Although English is taught as a subject in primary schools, the majority finish school with little confidence in the language. An attempt to allow Kiswahili to be used in both primary and secondary schools is still under discussion (Qorro, 2006). However, the government seems reluctant as the issue of language of instruction is not included in the SEDP priorities (Sumra and Rajani, 2006).

With these deficiencies, what capabilities are students in secondary schools left with if not cramming facts and reproducing them in examinations? Copying notes and dependence on teachers' knowledge has been a common practice in rural secondary schools, where libraries are still lacking. The schools have become places for students to complete the necessary years of secondary school and they then go back to their societies unprepared to meet the challenges of life (Sumra and Rajani, 2006; Hakielimu, 2007). To be able to achieve excellence, in secondary schools, different issues need to be addressed. First, the examination systems in the country need to be improved. When education is gradually shifting from content-based to competence-based curricula, the examinations also have to change in order to test competencies and capabilities. They have to measure complex comprehension, analysis, problem-solving and creativity and

the final scores have to reflect the competencies needed in society. Currently the examinations especially at primary level are made to test only recall and memorization as mostly are multiple choices. Who doesn't know the weaknesses of multiple choice questions in examination? Why being used as the sole mode of examining if examiners are seriously looking for creative skill?

Second, a clear policy on the language of instruction needs to be introduced to clarify the existing debate on which language can be used in secondary school (see also Qorro, 2006). Besides the debate teachers in schools have been using Kiswahili in teaching on the expense of English. Code switching is reported common in teaching to secondary school classes (ibid). The need for a clear language policy will help in clarifying on the official language of instruction in secondary school teaching. Other issues that need attention in improving quality of secondary school education include inspections, teacher quality, and classroom practice. Inspections have to change from checking only formalistic requirements included in the observation checklist to observing competence in different activities. Inspectors should not end their work in assessing teaching but should extend to assessing competences after lessons. Training of teachers, on the other hand, has to ensure a balance between subject knowledge and pedagogical skills (see Sumra and Rajani, 2006). A balance between theory and practical knowledge is needed among teacher trainees. In schools, teachers need to work with a shared purpose and use team teaching and mentoring in order to help each other and improve their teaching. Their collaboration can lead to improved classroom practices (Gajda and Koliba, 2008). Altogether, increased funding for education and secondary school education in particular is needed to improve quality.

### **3.4 Identifying educational quality**

The proceeding of this chapter has exposed the complexity, contextual and multi-faceted nature of the notion of quality. In its sections, the discussions have shown that quality cannot be identified from a single but rather a combination of different measures. But what can stand for a measure for quality? What does measurement mean? In the mathematics and science fields, the term measurement is referred to quantifying, calculating or determining values of physical counts. In other words, measurement is the process of obtaining quantities and usually done to things which are easily counted. For example in measuring length, weight or height, a measure is the number assigned to represent the counts. Unlike quantity, measuring quality is rather a difficult and challenging process (Weir, 2009; Mortmore and Stone, 1990). To be able to define the quality of education it is important to know how it is measured (see also Peters, 1992). Poor performance in examinations and the falling quality of

education can be associated with lack of teaching and learning resources (Bedi and Sharma, 2006), ill-trained teachers (Wedgwood, 2005) and overcrowded classrooms (Nilson, 2003; Wedgwood, 2005). But are these real measures of quality? How are they measured?

According to Shahzad, (2007) the quality of education is measured by using different performance indicators. Competence and achievements are examples of the performance indicators. The emphasis of measuring quality of education therefore has been associated with improving the performance of teachers, competences and achievements of the students (Campbell and Rozsnyai, 2002). Similarly, Vedder (1994) contends that measuring the quality of education is related to raising students' achievements. This means that measurement shows whether there is satisfaction in the results, and thus, serves as a function in determining challenges that need special attention towards improving quality of education (Galukanda, van Berkel and Wolfhage, 2009).

Although the measuring of quality is considered important, it is difficult to judge the best strategies for measuring (Weir, 2009). In this sense, measuring quality becomes a complex and value-laden process (Mortmore and Stone, 1990). This means there is no simple one-dimensional measure of quality in education (Finnie and Usher, 2005). In defining quality of education, many factors interact: students and their backgrounds, teachers and their skills, schools and their structures and environment, curricula, and societal expectations (Nilson, 2003). Also the components of education that can be measured vary, depending on the objective of measurement and the interest of the judges. In either case, measuring the quality of education gives better pictures of what and how changes can be made.

Based on this complexity and multi-faceted nature, different methods of measuring quality in education exist (Mortmore and Stone, 1990). However, to obtain a better measurement of quality, the methods employed need to include individual differences like school contexts, academic level and choice of courses offered in different institutions (Finnie and Usher, 2005). Thus, measuring quality has remained a competing agenda, and in most cases measurements are found to lend themselves to standards since they lack scales (Weir, 2009). This means standards are set and quality is assessed against real outcomes and decisions are made as to what extent standards are met (Lomas, 2002). This section attempts to discuss the methods that are commonly employed in measuring quality in education. Three methods: final examination, inspection, and research are discussed using examples from different countries and compared to Tanzania to expose similarities or variations in standards.

First is the use of final or commonly national examinations. Final examinations are mainly in written or practical form prepared by external accreditation institutions. In Europe, external subject assessment is one of the forms of accreditation (Stensaker et al., 2008). External examinations treat students fairly and ensure that awards given by institutions are comparable in respect to government academic standards (ibid). Generally, external examinations promote good practice and enhance learning as they show students' levels in respective subjects. The good practice obtained from external examinations include: increase in professionalism, accountability and reflection. According to Jacobsen and Lauvås, 2001, cited in Stensaker et al, 2008 a critique to the external examinations is that they favor students in the host institution. To avoid this critique, therefore, the use of an external body is commended.

In Tanzania accreditation is performed by the National Examinations Council of Tanzania (NECTA). This is an autonomous body responsible for final examinations in primary and secondary schools as well as in teacher training colleges. NECTA examinations are aimed at measuring excellence in students' achievement (Malekela, 2000) and to some extent the efficiency and effectiveness of the teaching and learning processes (Hakielimu, 2007). It is argued in Moshia (2000) that, excellence is measured by agreed standards and in this case, examinations are used as standards. According to Stensaker et al. (2008), examinations are intended to evaluate the realization of set aims and the objectives of education and curricula. They are used to assess proper implementation of the curriculum and measure student progress and achievement for certification and selection for further education and training (URT, 1995).

A critique of this method is that examinations sometimes can inevitably provide only partial results on the quality of education (Mortmore and Stone, 1990). In most cases the examinations only measure the cognitive domain and leave other domains unidentified. Therefore, high cognitive skills cannot be generalized to quality in an individual without considering that other factors may sometimes influence. On the other hand, objective examinations like multiple choices and matching items are not the best measures as they are subject to guesswork and cheating and hence make the method criticized (Hakielimu, 2007).

The second measure is inspection of school performance. The purpose of school inspection is to monitor the delivery of education and adherence to the stipulated curriculum and the standards set, in order to safeguard good quality in education (NAO, 2008). Inspections are done to ensure that quality in education is attained (URT, 1995). The efficiency and effectiveness of delivery of education in

schools require closer monitoring and regular inspections. During school inspections, the inspectors' aim is to answer different questions guiding their work in measuring the quality of education (Estyn, 2009). The guide is summarized in a checklist used to rank schools depending on their performances. Presented below are examples of scales that are used during inspections. The scales are taken from two countries Wales and Tanzania as examples to show the variation in inspection.

According to Estyn (2009) in Wales and in some other countries in Europe attention in inspections is on outcomes, processes of provision and leadership and management. Scores are then given to rank the institution according to what has been observed. In Wales, for example, a four point scale is provided, as shown in the table below.

**Table 3: Scale of inspection report in Wales**

<b>Grade</b>	<b>Meaning of the judgment made</b>
Excellent	Many strengths
Good	Strength with no important areas for improvements
Adequate	Strength outweighs areas of improvements
Unsatisfactory	Areas that need improvements outweigh strength

Source: Estyn, Her Majesty's Inspectorate Report, 2009

Likewise in Tanzania school inspection is a vital means of monitoring the delivery of education, adherence to stipulated curriculum and set standards. At each inspection, inspectors go through a checklist of 148 items, mainly on teaching and learning, administration, physical infrastructure, environment and other social services (NAO, 2008). After the inspection reports are prepared and distributed to school owners and the Commissioner for Education in the case of government schools. A copy of the report is also given to executive directors and the heads of schools. The performance of each school is rated using the scale below.

**Table 4: Scale of inspection report in Tanzania**

Score	Grade	Remarks	Action taken
81–100	A	Excellent	Report and certificate of excellence
61 – 80	B	Good	Report and letter of congratulations
41 – 60	C	Moderate	Report
21 – 40	D	Poor	Report and warning letter
00 – 20	E	Very poor	Report and closure of the school

Source: Inspector’s Report, North East Zone, 2008.

Inspections are scheduled to ensure that each school is inspected at least once every two years. Within this schedule, special inspections are conducted in matters that require immediate attention. Special inspections are in the form of research or visits to uncover more of the issues that affect smooth curriculum implementation in order to facilitate decision-making where appropriate. A study conducted by the National Audit Office in Tanzania (NAO) revealed that students’ poor performance is not strongly addressed in the special inspection reports (NAO, 2008). In the NAO study, 99 out of 2900 reports were reviewed and it was found that not a single report addressed pedagogy and students’ performance as aspects of quality.

**Table 5: Issues addressed in special inspection of secondary schools in Tanzania, 2006 - 2007**

Issues addressed	Inspection addressing the issues	
	N	%
School building and furniture	91	100
Infrastructure/public utilities	66	73
Financial matters	8	9
Pedagogy and student performance	0	0

Source: NAO report, 2008.

While Tanzania is striving to achieve quality education, the priorities in the special inspections do not support the government initiatives. The NAO report



shows that out of 148 items that were inspected, only 16 referred to poor student performance. This is a criticism to the method, as it was found to be rigid and to follow standardized items that give no room for inspectors to probe.

A third method of measuring quality of education is the use of research. Similar to special inspections, but in more developed way, research is the scientific way of collecting and analyzing data from an educational study (Shuttleworth, 2008). Though research is relatively expensive, a considerable number of studies have been carried out in different areas showing its effectiveness (Mosha, 2000; Finnie and Usher, 2005; Sifuna, 2007; Lomas, 2002; Hakielimu, 2007). Some of these researches have been concerned with identifying the issues involved in measuring quality of education (Finnie and Usher, 2005). In particular, various case studies, and research on school effectiveness have been able to establish methods of judging the overall quality of a school (Sifuna, 2007). The research on school effectiveness has been particularly focused on the identification of differences in achievement between schools over and above any differences in the prior learning and family background of pupils (Dembele and Lefoka, 2007). Thus, studies of school effectiveness have been grappling with questions about educational quality (Ololube, 2006).

Having discussed these different ways to measure or assess the quality of education, it is important to note that there is no single method that has been claimed to be more effective than others. Among the methods discussed above, research seems to be promising and an appropriate way to measure quality of education. This study has used the research method to understand teachers' understanding of the notion quality as related to secondary school education. It has developed the assumptions of Peters (1992) that what you measure you can improve. I therefore would propose that what you can understand you can improve. Beside its appropriateness, the method has some limitations. The cost involved in conducting studies is a disadvantage especially in poor researchers and countries.

### **3.5 Concluding remarks**

This chapter has discussed the conception of quality and quality of education from different perspectives. In the discussion educational aims have been viewed as requirements from society and therefore quality of education cannot be separated from them. In this chapter it has been learnt that the expansion of access and challenges in secondary schools in Tanzania are two opposing issues that are growing simultaneously. While the number of schools and students are increasing, the growing challenges, on the other hand, led to the need for transforming secondary school education. Thus, transformation as a means for

social change aiming at adding value in terms of new knowledge and skills is needed to attain excellence. In this chapter I have also proposed different areas that need to be transformed in order to improve quality.

It has further been discussed that standards differ from country to country, depending on the aims and targets of each country. But in most countries examinations are treated as standards for measuring students' achievements and as indicators of quality. Nevertheless, examinations cannot stand alone in measuring the quality of education; an integrated mode of assessment is needed. The chapter, therefore, has discussed other different methods used in measuring the quality of education. In the discussions, both local and global examples have been employed to compare similarities and variation in relation to the context of the study. However, secondary school education will remain challenged unless different key actors collaborate and increase their commitment.

## **4 Methodological research approach**

This study adopts a qualitative research approach to explore the conceptions of teachers. The discussion in this chapter includes the rationale for using a phenomenographic research approach. The reasons for selecting phenomenography as the methodology and in the way it is used are presented. The main focus in the study is on investigating teachers' conceptions about the quality of secondary school education. In the proceeding of this chapter I pose two research questions to guide my data analysis and discussion. To contextualize the study, the area and background issues of the teachers involved are discussed. Finally, I discuss issues regarding validity, reliability and ethics and the way they were addressed in the study.

### **4.1 Research questions**

The theoretical background of the study presented in chapter one underlines the need to conduct research on conceptions about the quality of secondary school education. This choice is motivated by the growing concerns and conceptions about the quality of education. Besides the conceptions obtained from other stakeholders, teachers' conceptions are considered important as may reflect the practical situations found in schools. As explained earlier, the concern for secondary school education in Tanzania is to increase access and improve quality mainly through students' achievement in examinations (Hakielimu, 2007; MoEVT, 2010). The concerns have been reflected in different forums by politician and parents in the country.

My study can in a way be characterized as a case study because it studies conceptions to a selected few teachers, and as in qualitative studies it does not provide an insight which can be generalized. Instead it offers deep insights into a selected group of teachers working under the same conditions as secondary school teachers in government schools country wide (Marton and Booth, 1997). Therefore the knowledge generated is relevant for viewing teachers' conceptions beyond the selected group of respondents. To understand the conceptions of teachers, I posed two research questions:

What conceptions do teachers have of the quality of secondary school education?

What conceptions do teachers have of quality improvement in secondary school education?

In the first question the ambition was to find variations in the way teachers conceive the quality of secondary school education. The focus is to find out the understanding of the notion quality of secondary school education from teachers. The second question is focused on conceptions of quality improvement. While the first question is on understanding, the focus in the second question is on the development of the quality of secondary school education. It is aimed at finding conceptions among teachers towards improving and sustaining the quality of secondary school education.

## **4.2 The qualitative research approach**

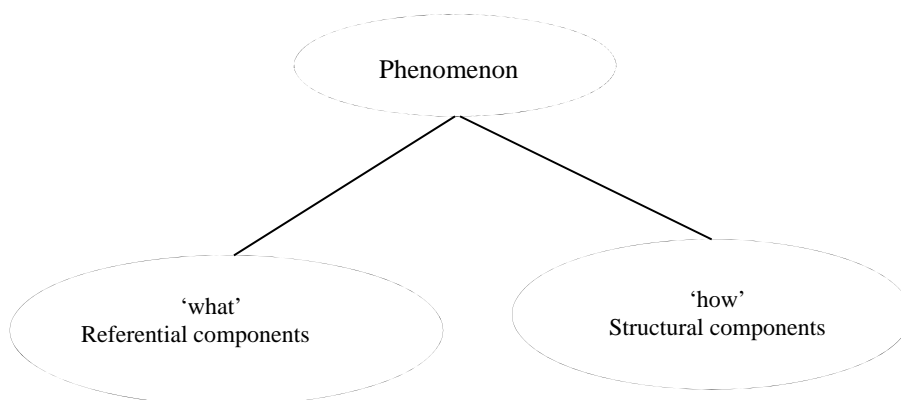
In education research, teachers' conceptions can be investigated through various qualitative approaches. In my presentation a phenomenographic approach is used (see Marton and Booth, 1997) to study teachers' variations in understanding and improving the quality of secondary school education. The selection of the approach was made from the nature of the study, as it investigates conceptions, and phenomenography is a suitable approach (Marton 1981; Åkerlind, 2005). According to Marton and Booth (1997), phenomenography is a method of understanding a phenomenon and is focused on qualitatively different ways in understanding and in the development of new meaning. This study aims at contributing to the existing discourses about the quality of secondary schools in Tanzania and elsewhere. The results will expose the way teachers understand quality in education. In this section, I present the methodological aspects of the approach.

In the mid-1970s a research study was carried out on learning which clearly showed that there is variation in how students understand learning (Marton, 1981). These studies laid the foundations for introducing a qualitative research approach called phenomenography (see Stamouli and Huggard, 2007). Phenomenography is an empirical research approach that seeks to describe phenomena in the world as they are seen by different people (Marton and Booth, 1997; Åkerlind, 2007). The ambition of a phenomenographic study is to determine how individuals form meaning and how this meaning differs across individuals. The object of the research in phenomenographic studies is not the phenomena, but the relationship between the actors and the phenomena (Browden, 2005; Åkerlind, 2007). In this approach meaning is described as a relationship between the individual and the phenomenon. The approach is therefore concerned with description, analysis and understanding of things as they appear to different people (Marton, 1981; Pang, 2003). The interest in phenomenography is the variation in ways of experiencing the phenomenon (Marton and Booth, 1997; Pang, 2003). From this point of departure, the focus in

my study is to describe the quality of secondary school education as it is understood by teachers in Tanzania.

In phenomenographic studies researchers ought to develop an understanding of the qualitatively different ways that people can conceptualize some specific phenomenon of the world (Marton, 1981). In my presentation, I consider the notion ‘conceptions’ important and also I am aware that it carries different meaning. Fullan (2001) defined conceptions as beliefs or core values held by individuals about a phenomenon. Other researchers use conceptions to mean ways of understanding a phenomenon (Kiley and Mullin, 2005; Petersson, 2005) or ways of seeing something (Eklund-Myrskog, 1996). In this study conceptions are taken to mean qualitatively different ways of understanding the same phenomenon. The qualitatively different ways of conceptualizing a phenomenon are referred to as categories of description (Marton and Booth, 1997; Åkerlind, 2007; Stamouli and Huggard, 2007). A category of description is the researcher’s interpretation of an individual’s conceptions (Eklund-Myrskog, 1996). The relationships between these categories of description are then analyzed in terms of factors such as their similarities and differences in understanding the phenomenon.

According to Marton and Booth (1997), conceptions are described in terms of experiences or internal relations between the phenomenon and the individual. The internal relations are conceptualized to have two components the ‘what and how’ of the phenomenon, as summarized in the figure below.



**Figure 3: Graphical representation of internal relation in a phenomenon**

The referential components describe the ‘what’, referring to the meaning of the phenomenon in everyday life, and the structural components ‘how’ refer to a deeper level of meaning, describing the parts and the meaning of the parts from the holistic, the way the parts seem to be organized and the way the phenomenon differs from other phenomena (Hales and Watkins, 2004). Having this in mind, in the present study teachers were given time to explain the way they understand the notions and were also probed to elicit differences in meaning.

In addition, Marton and Booth (1997) identified two assumptions in which phenomenographic research appears to be deep-rooted. The first assumption is the limited number of qualitatively different ways people view a particular phenomenon. The second assumption is that a single person may not express every aspect of a conception. From the second assumption I understand that in some cases a specific conception cannot be seen in its totality in the data obtained from a single person. Thus, phenomenographic research requires a combination of data from multiple individuals in order to better understand the different ways of thinking about a phenomenon (see also Meena, 2009). In the present study, a sample of 30 secondary school teachers serving in four schools both in urban and rural context with a varying range in their teaching experiences, and subject areas was selected.

Even though phenomenographic and phenomenological studies both investigate experiences, the two approaches nevertheless differ in their perspectives. Phenomenology is a philosophical method where experiences are obtained from the individual. Thus, it uses first order perspective where we cannot separate the experience from the experienced (Marton and Booth, 1997). While in phenomenography a distinction is made between first and second order perspectives. In the first order the focus is on describing the phenomenon, for instance description of the quality of secondary school education as it is, based on observations made of its features. The second order describes the phenomenon as it appears or is experienced by other people (ibid). Phenomenographic studies therefore use the second order perspective.

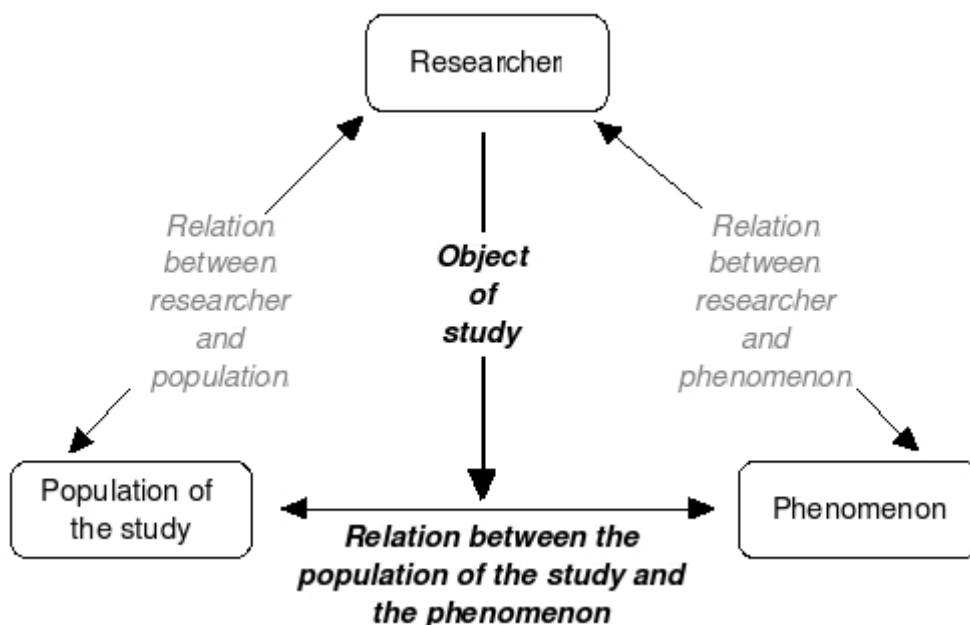
‘...in order to make sense of how people handle problems, situations, the world, we have to understand the way in which they experience the problems, the situations and the world, that they are handling or in relation to which they are acting. Accordingly, a capability for acting in a certain way reflects a capability to experiencing something in a certain way.’ (Marton and Booth, 1997:111)

This present study uses second order perspective to describe how the quality of secondary school education is conceived by teachers. My adoption of a second

order perspective is from the fact that there is one notion which each individual experiences and further builds an internal relationship among individuals (Marton and Booth, 1997). From this, the phenomenon under investigation in this study is the quality of secondary school education.

As has been argued, the center of any phenomenographic research is about how a phenomenon is experienced by a specific group of people and the variations in the ways this phenomenon is understood (Stamouli and Huggard, 2007). Teachers are not themselves the phenomena of my study, but their understanding or conceptions of the phenomenon of the study. The teachers' conceptions about the quality of secondary education, therefore, are the object of my study. My focus is on the variation in both the, conceptions of the phenomenon as experienced by the teachers and in the variations as experienced by the researcher (Pang, 2003). As has been argued, the phenomenon cannot be seen in isolation: it is found within the people in the study. The point of interest in the study is the way the phenomenon is understood and experienced by other people.

The figure below (adopted from Bowden, 2005) illustrates the relationship between the researcher, population or sample and phenomenon of the study. The adoption of this figure is made because of its ability to clarify the role of the researcher in the investigation and the relationship with both the population and the phenomenon of the study.



**Figure 4: Researcher’s relationship with the object of the study (adapted from Bowden, 2005)**

The figure above shows the relationship between the researcher, the population and the phenomenon of the study. The relationship is from the fact that the researcher is required to have enough knowledge and understanding of all aspects of the phenomenon. At the same time, the researcher is supposed to relate to the population of the study. These relationships are necessary for the researcher to be able to discuss and question the participants about the various features of the phenomenon (Stamouli and Huggard, 2007). In this sense, the researcher’s relationship with the population helps in understanding their responses in the interviews. From my professional history it was simple to understand the language used by teachers in the interviews. As discussed in the motives, I worked as a teacher in secondary schools and later as a teacher educator. These experiences allowed me to easily follow and understand the language and answers given by the teachers in the interviews. The experience in the language spoken by teachers minimizes the chances of imposing my own interpretations. The impositions were minimized by the use of an interview guide which was followed during and throughout the conversations with teachers.



As has been argued, the population and phenomenon are not in isolation, but rather related. The figure also shows the relationship between the population and the phenomenon under study. This is because the population owns the understanding of the phenomenon under investigation. This relationship is therefore, the object in the investigation. This means that the understanding of the notion quality of secondary school education can be obtained from the teachers' conceptions. This argument brings out the necessity to research teachers with different characteristics so as to expand variability in the sample.

### **4.3 The area and sample of the study**

The study was conducted in Moshi, in the northern part of Tanzania. As has been discussed before, this study can in a way be characterized as a case study because it studies conceptions to a selected number of teachers, and as in qualitative studies therefore, it does not provide an insight for generalization. Instead it offers deep insights into a selected group of teachers working under the same conditions. Therefore the knowledge generated is relevant for viewing teachers' conceptions beyond the selected group of respondents.

The sample drew teachers from four secondary schools, from both rural and urban schools. The selection of the area of the study had been influenced by a number of factors including work and funding. During the start of my study I was working as a teacher educator in one of the teacher training colleges in Moshi. In my work I had also to spare time to do my research. In this case data were collected on a part-time basis and thus, it was necessary for me to choose schools which were near to my workplace. This enabled me to continue with my teaching in college and also conduct the research. Lack of funding again was a factor that hindered me choosing schools those were far from my work place as it could need travelling and sometimes stay away from home and work place. Since the study was not aimed at generalizing the results the selected schools were considered sufficient for the study (Trigwell, 2000).

In creating the sample in the phenomenographic study, the selection of persons ought to be done on the basis of strategic considerations and purposes, not just on the basis of representative selection (Åkerlind, 2005). Similarly Flick (2006) states that, the decision for choosing one sampling strategy over others is whether it is rich in relevant information. In this study therefore, the selections were made to include teachers with different characteristics. The characteristics considered in forming the sample were: teaching experience, level of education, gender and context of the study as well as subject taught in school.

As Åkerlind (2004) argues, teaching in schools involves more than content, methods and outcome. In addition, Levenson, (2004) argues that efforts to improve teaching in schools are sometimes unsuccessful because of their complexity. These two arguments indicate the need to include subject area and teaching experience in selecting the sample. The teachers involved vary in their teaching experiences from two to thirty years. The teachers also varied in their levels of education from one month induction to three years. As Proser, Trigwell and Taylor (1994) argue, conceptions are influenced by educational change. I relate educational change with the development in level of education and eventually a basis for inclusion as an important characteristic for my sample. It is further argued that the purpose of any phenomenographic study is to create deep understanding of a complex phenomenon, not to obtain results which can be generalized to the whole population (Eklund-Myrskog, 1996). The demand for variation in conceptions leads to the handpicking of participants from the relevant strata (Attorps, 2006). Teaching experience and level of education were considered the relevant strata of my study. In introducing my study I requested the participation of teachers with these varying characteristics.

It is also argued in Cohen, Manion and Morrison (2007) that a sample is purposive if the selection is made on the basis of criteria which correspond to the intention of the study. In addition, Denzin and Lincoln (2000) state that most qualitative researchers who employ purposive sampling seek groups, settings and individuals where the processes or phenomenon being studied are most likely to occur. In addition to the experiences and level of education discussed above, the context, gender and subject discipline were also included in the selection of my sample. Thus, the sample involved both male and female teachers from both rural and urban schools. The selection of rural schools is because they are more challenged in terms of resources and that newly constructed schools in Tanzania are mainly found in rural areas. In rural schools it is also likely to find newly employed teachers. The selection of the teachers was narrowed down to the classroom to obtain the conceptions at actual curriculum implementation. Subject disciplines ranging from natural science, humanities, languages and commerce were considered in the selection of the sample, as shown in the table below.

**Table 6: Background characteristics of the participants of the study**

Characteristics	Profile	Number of teachers
Level of education	License	4
	Diploma	20
	Degree	6
Experience	2 – 5 years	13
	6 – 10 years	9
	Above 10 years	8
Gender	Female	17
	Male	13
Subject disciplines	Natural sciences	6
	Humanities (History, Geography and Civics)	10
	Languages (English, Kiswahili)	10
	Commerce	4
School context	Rural	19
	Urban	11

The table shows that the selection of teachers was not evenly distributed within the characteristics. The uneven distribution was because most of the teachers found in schools were holders of the diploma of education. The number of

female teachers was also relatively higher than that of male teachers. The schools further revealed an inadequate number of science teachers as compared to humanities and languages. The intention was to have an even distribution in the subject but the reality was the opposite as selection was influenced by the demographic characteristics of teachers in schools. The reason for including all these characteristics was to expand the variations in of my sample and in the information obtained. The sample therefore portrayed the reality found in secondary schools in Tanzania.

#### **4.4 Data collection**

To gather information about teachers' conceptions, a variety of tools are used in qualitative research. Observation, interviews and questionnaire are the common instruments used in data collection. The instruments are used to assess competence (what teachers know), performance (what teachers do) and teacher effectiveness (the influence teachers have on their students) (Cohen, Manion and Marrison, 2007). The decision to select a data collection instrument in most cases is determined by the research approach of the study. Phenomenological and ethnographic studies would require data mainly from observations, while data in this study were obtained from interviews to secondary school classroom teachers as a reliable method in phenomenographic studies. A semi-structured interview was conducted to capture teachers' conceptions about the quality of secondary school education in Tanzania.

In phenomenographic studies, the use of interviews to collect data has a number of advantages. Interviews are strong methods for capturing spoken and non-spoken information. They are flexible tools for data collection, enabling multi-sensory channels to be used, including verbal and body language (Cohen, Manion and Marrison, 2007). An interview in this sense is taken to mean the conversation between two people (the interviewer and the interviewee) based on a guiding set of questions aiming at obtaining specific information. It makes possible to capture what a person knows (knowledge or information), what a person likes or dislikes (values and preferences) and what a person thinks (conceptions, attitudes and beliefs) (Cohen, Manion and Marrison, 2007). My assumption is that teachers' capability to interpret the curriculum would reflect in the way they conceive the quality of education.

Regardless of the advantages of interview in phenomenographic studies, the method is criticized for the inability of the researcher to offer a balance between letting the interviewee speak and at the same time keeping the conversation focused. As the result of this criticism, Larzén (2005) has suggested that respondents should be given both time and freedom to develop their own line of

thinking and make reflections on issues that seem relevant. Bearing this in mind, after establishing a rapport and explaining the purpose of my study, I allowed the teachers to describe anything they would think brings meaning in relation to the theme. Similar questions were asked but in different ways to elicit different ways of understanding the notion in focus (Bowden, 2000). Probes were frequently used to deeply follow and capture what had been said (see also Patton, 1990). Each probe acted as an opening to the next probe to be able to achieve mutual understanding of the notions in focus. Even if the interviews were tape-recorded, notes were also taken to substantiate the recorded information. The time for interviews ranged between 30 to 60 minutes (see also Trigwell, 2000).

As in ethnographic studies, the natural setting for qualitative interviews in phenomenographic studies is considered important. It is argued that interviews conducted in a natural setting are likely to produce reliable results (Kincheloe, 1999). To meet the requirement of this argument, interviews in my study were conducted in the teachers' work places, where a private space with minimum interference was agreed between the respondent and the researcher. Most interviews were done in teachers' department offices or elsewhere that seemed convenient.

The interviews were conducted in two phases. The first phase of data collection was conducted between April and May, 2008 and involved 33 teachers, while the second phase was done in March, 2010. The reason for having two phases was to obtain a deep understanding and consistency in meaning of the phenomenon of my study. However, the possible disadvantage of the extended period was the possibility of losing some of the objects of study. Three teachers were not found in schools in the second phase of the interviews, as they were on study leave. This reduced my sample to 30 teachers, which was still considered a reasonable number, as a group of people between 15 and 20 is sufficient in purposive sampling (Trigwell, 2000).

#### **4.5 Data analysis**

The main task in phenomenographic research data analysis is the identification of categories of description. The identified categories represent the different ways of conceiving a phenomenon and are hierarchically and logically interrelated (Marton and Booth, 1997). The analysis is made in two parts, following the two research questions and three stages in line with phenomenographic research procedures (Larzén, 2005). The first part of the analysis was to find out how teachers conceive the quality of secondary school education. And the second part, mainly focusing on the second research question, was to find out from teachers the conceptions they have on improving the quality

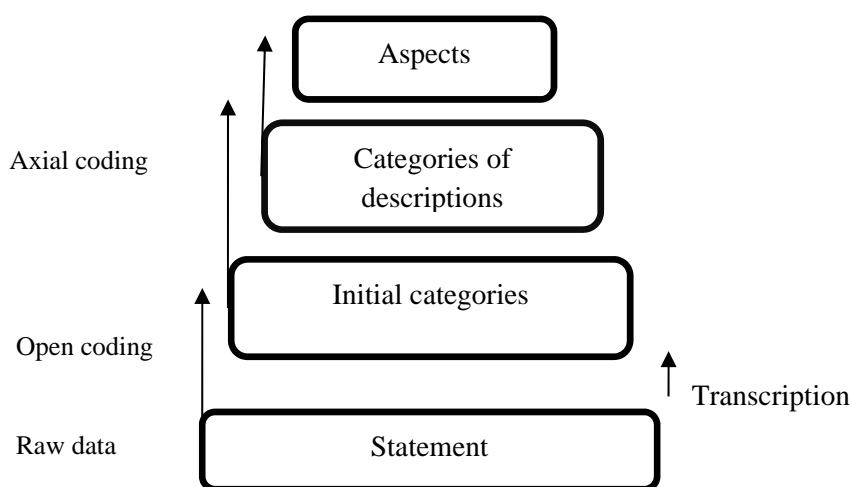
of secondary school education. The data analysis started with transcribing the interviews. The continued process consisted of reading and becoming familiarized with the transcripts from the entire interviews and forming the categories, and aspects. Through these stages, significant elements in the answers were identified, grouped and regrouped until the data seemed to be in a stable condition (Stamouli and Huggard, 2007). The transcripts were broken down into separate statements, sentences or phrases, depending on the meaning they represented. Altogether, the stages form the coding process (Strauss and Corbin, 1990). Coding is an interpretive technique that both organizes the data and provides a means for interpretation.

Douglas (2003) equates coding with raising questions and giving provisional answers about the categories and their relations. Codes are usually in the form of words or short phrases (Allan, 2003) that suggest how the associated data inform the research aim. These are tools researchers think with and can be changed or modified when repeated interaction with data occurs. Following this argument, the transcribed interviews in the study were coded according to categories that coincided with the major areas of the questions. In this case, categories were created as they emerged from the transcripts (Stamouli and Huggard, 2007). In qualitative research, three types of coding are distinguished: open, axial and selective coding (Strauss and Corbin, 1990). Open coding is the initial stage in the coding and analysis of data in qualitative research. In this stage concepts are identified, developed and later grouped to form initial categories. The initial coding in my study began with reading the interview transcripts and forming shorthand statements, sentences or phrases that reflected the meaning of quality of secondary school education and quality improvements. Open coding allows similar incidents and phenomena to be compared and contrasted with each other (Stamouli and Huggard, 2007; Douglas, 2003). Acknowledging this argument, the statements were then grouped into differences and similarities, and were correspondingly coded to form initial categories. In the course of coding sometimes phrases featured in more than one category. I had to critically examine the phrases be able to locate each in a respective category.

Repeated reflection between the initial categories and the data lead to improving the categories formed. This process is called axial coding, and an intensive analysis was made, leading to expanding the density of each category. Relationships between open codes were identified to form categories of descriptions or aspects (see also Douglas, 2003). Structural variations of the aspects caused by repeated relating of the data were obtained in this stage. The aspects identified emerged from the closely interrelated or overlapping open

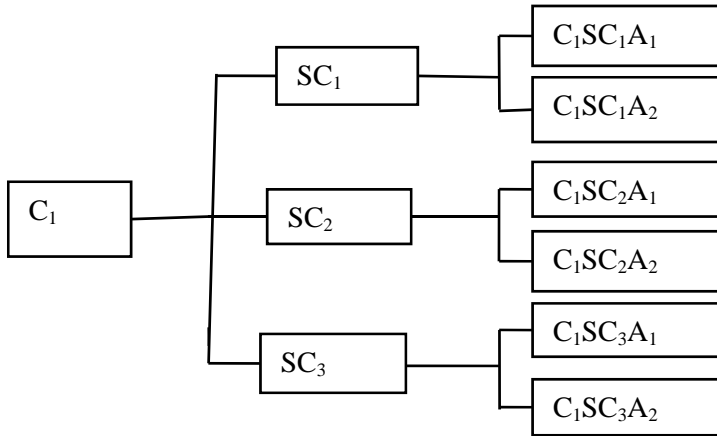
codes, for which the supporting evidence is strong (see also Strauss and Corbin, 1990).

The third stage of coding is selective coding. Selective coding requires the selection of the emerging phenomenon and can be classified from its representations (Douglas, 2003). According to Strauss and Corbin (1990), selective coding aims at selecting the core issues related to categories to form grounded theories. Through this type of coding, the categories are integrated and developed into a theory. Since this study is not aimed at forming theories, only open and axial coding were employed in the analysis, as illustrated in the figure below.



**Figure 5: Coding process**

The figure above shows that the raw interview responses were used and broken down to form statements. This was done to allow open coding, where each statement was coded to ensure that it possesses a larger coverage in the study. The open coding helped in the formulation of initial categories. In the axial coding process, initial categories were filtered more and more to form the final categories or sub-categories of descriptions and aspects as their inner parts. Phrases which appeared central and frequently mentioned were taken as aspects (see also Brown, et al., 2002). Aspects are the characteristics that can be used to understand the category and give the direction of the conceptions. This stage marked the end of the coding and categorization of the data. The system of the categorization is summarized in the figure below.



**Figure 6: System of categorization**

In the figure, C1 represents the category name, C1SC1, C1SC2 and C1SC3 are the sub-categories, while C1SC1A1, C1SC1A2, C1SC2A1, C1SC2A2, C1SC3A1, C1SC3A2 are the aspect names. However, in the data analysis the real names of the categories, sub-categories and aspects are used instead of these abbreviations.

## **4.6 Reliability, validity and ethics in research**

Reliability and validity are common terms used in quantitative studies (Golafshani, 2003). When used in qualitative research, the terms may hold different meaning, and hence it is important to define them. Patton (2002) states that validity and reliability are two factors which also a researcher in qualitative studies should be concerned about while designing a study, analyzing results and judging the quality of the study (Golafshani, 2003). Reliability and validity are viewed differently by some qualitative researchers, who consider them as inadequate. To bring the same function in qualitative research, terms like credibility, transferability, and trustworthiness of the study are used (Hoepf, 1997; Winter, 2000; Golafshani, 2003). This study continues using the terms reliability and validity and because of that they are defined and explained.

### **4.6.1 Reliability**

Kvale (1996) refers reliability to the replicability of results, which is ensured through appropriate methodological procedures to obtain consistency in data interpretation. This is difficult in phenomenographic research because of the



inter-subjective approach during data analysis and interpretation. However, in phenomenographic research reliability is ensured by the use of several researchers to analyze the data. When using a research team, Kvale (1996) suggests two strategies to improve reliability. First, the researchers independently code the data and second develop categories through dialogue or discussion in a team. In this study, I adopted the second strategy, where three master's students were given the initial developed categories and discussed referring them to the sample statements. The formed categories were also time to time presented to fellow doctoral students in different seminars and discussions. The discussions in the two groups helped in renaming some of the categories. Even if the agreement between my categories and those resulting from the team was not calculated in percentages, the difference was rather small. According to Säljö (1988), the appropriate level of agreement as estimated between 80% and 90%.

Ratcliff (1995) suggests two other ways of obtaining reliability in qualitative studies: multiple reading of transcripts and multiple transcribing of the data. The two methods relate to each other, as multiple reading leads to multiple transcriptions of data. These were employed through the rest of the data analysis to complement the agreed categories. In the analysis I spent most of the time in grouping and regrouping as a result of multiple reading and transcriptions until the data were stable. The multiple reading and transcription helped in improving the categorization.

#### **4.6.2 Validity**

In qualitative research, validity is a tool for bringing justice to the study. It refers to the degree to which findings reflect the phenomenon investigated (Åkerlind, 2004). According to Marton and Booth (1997), data in phenomenographic research are reflected as they are experienced by the researchers. To bring valid reflection, researchers are cautioned to use appropriate validity measures. Kvale (1996) suggests two validity measures that are appropriate in phenomenographic studies. These are communicative and pragmatic validity. Communicative validity is ensured if the researcher is able to argue his or her research findings. As explained above, the analysis of data in this study involved a research team. It also involved discussion with my fellow doctoral students, and with my supervisor and co-supervisor. During guidance their comments were argued accordingly (Ratcliff, 1995). The findings have been presented in different local meetings to different people in Tanzania that are not involved in the study. These events gave me the opportunity to defend and argue my findings.

Pragmatic validity is based on the usefulness of the research outcome to the group under study. Furthermore, pragmatic validity is ensured from the acceptance of the research findings by the intended audience (Uljens, 1996). According to Åkerlind (2004), the study is considered useful if the findings can be applied to the situation under investigation. This study aims at adding knowledge about the quality of secondary school education in Tanzania. The findings therefore are expected to benefit not only teachers in their teaching but also curriculum developers, examiners as well as educational planners.

Ratcliff (1995) states that validity is seen if the results converge to other sources in the literature review, and also by the use of member check. In the analysis I have several times referred to findings in other research as are discussed in the literature review. This has shown that even though this study was done in a different context, the data obtained still reveals similar results to earlier studies (Hakielimu, 2007; Makombe et al, 2010). As has been stated, the data collection was done in two phases. The second phase had two functions; getting insights and consistency in the answers and checking whether I got the statements in the first phase correctly. Sharing with the teachers the answers collected in the first phase helped in correcting any misconceptions. The answers are presented in the form of statements or phrases to represent the respondent as another way to ensure validity (Ratcliff, 1995).

#### **4.6.3 Ethical considerations**

Ethical protection is an important issue in any scientific study, especially when human beings are involved. In research, mainly in education and social sciences, ethics are concerned with protecting from harm individuals and groups who participate in giving information (Lankshear and Knobel, 2004). Harm can be defined as both physical and psychological injury. Psychological harm in research can range from experiencing being offended to being publicly undermined by the data collected, and the results drawn and interpreted from them. Physical harm means body damage or injury. In phenomenographic studies, for example, individuals may feel depressed or guilty from the results or interpretations made from the data collected from them (Mtika, 2008), especially when the results reveal specific features. Hence, two standards can be applied to protect the privacy of research objects: confidentiality and the principle of anonymity.

In scientific studies, the researcher is charged with the obligation of assuring that the confidentiality and anonymity of the research objects is guaranteed and upheld (Patton, 2002). This is done to make sure that the objects are not easily

identified in the research and as a way of minimizing any repercussions or consequences on them as a result of the data given or result of the study, particularly when the results present some controversial and sensitive issues. It should be noted that the need to protect the individuals in this study was paramount. In assuring that participants remain unrecognized, in the present study pseudonyms were assigned to each individual teacher. The use of pseudonyms is a traditional ethical criterion aimed at minimizing negative repercussions for individuals in qualitative studies (Meena, 2009).

However, in some cases assuring confidentiality and anonymity is difficult. Protection is difficult for schools or teachers with unique characteristics that make them easily identifiable. They may have specific features that are easily recognized when the researcher describes the settings of the study and the profiles of the research participants (Mtika, 2008; Meena, 2009). To protect such cases in this study, efforts were made to ensure that the presentation of the findings does not give specific features for readers to easily identify or relate the teachers with the statements or quotes included in the report. Since the focus was on conceptions, the specific characteristics of an individual or a school are not included in this report. As argued above, the use of pseudonyms is maintained throughout the study to ensure anonymity. Furthermore, interviews were on an individual basis, and not in groups, which made it simple to maintain the anonymity of the teachers (Shahzad, 2007).

Informed consent is another traditional guideline of ethics in research with human subjects. According to Kvale (1996), informed consent requires informing the research participants about the overall aim of the study and the possible features of the design and the possible benefits and risks that may result from the study. It is based on giving relevant information to the participant so they can voluntarily participate (Silverman, 2006). This was done during the introductory stage of data collection. Meeting with the head of schools was done aimed at seeking permission to obtain an audience with the teachers. Later on, in common meetings with the teachers the purpose of my study, together with the method of data collection was explained. The teachers were then asked to volunteer to participate in the interviews. Teachers who volunteered signed a list and proposed a convenient time for their interviews. The list was used as a schedule for the interviews to allow teachers to attend other school activities. None of the teachers was coerced to participate in the study, and those who did not participate were not blamed in any way.

## **5 Description of results**

In this chapter I present, analyze and interpret the interview data obtained from the secondary school teachers. I have divided the presentation into two main sections, each discussing one research question. Section 5.1 presents data for the first research question which is about conceptions about the quality of secondary school education and in section 5.2; data for the second research questions dealing with conceptions about the quality improvements are presented. The division further extends into categories, sub-categories and aspects. According to Eklund-Myrskog (1996), categories refer to qualitatively different ways of understanding a phenomenon. In other words, a category means a set of aspects reflecting the same phenomenon. Aspects are the inner parts of the category which give directions to the understanding of the phenomenon.

### **5.1 Conceptions about the quality of secondary school education**

In this section four identified categories in the data are presented, based on teachers' conceptions about the quality of secondary school education. The categories are considered to have similar focus, but vary in meaning. Similarity in focus stems from the fact that teachers independently responded to the same phenomenon. Variation in meaning derives from differences in understanding the same phenomenon. The responses obtained, therefore, were taken to represent the teachers' understanding about the notion in focus.

In the first research question, teachers were asked to describe or explain the notion quality as they understand it from secondary school contexts. The responses given showed similarities and differences in understanding and were classified into the four categories presented below:

1. Quality as meeting aims of society
2. Quality as individual achievements and capabilities
3. Quality as possession of competences
4. Quality as meeting challenges in education

The categories were further analyzed into sub-categories and further into aspects. The categories and sub-categories formed are summarized in the table below:

**Table 7: Teachers' conceptions about quality of secondary school education**

Categories	Sub-categories
Quality as meeting aims of society	Implementing a balanced curriculum Acquisition of knowledge and skills for self-reliance
Quality as individuals' achievements and capacities	Achievements in examinations Appropriate use of students' capabilities
Quality as possession of competences	Possession of identities Competence in the language of instruction
Quality as meeting the challenges of education	Dealing with overcrowded classes Addressing the lack of teaching and learning materials Meeting the challenge of a poor teaching force

### **5.1.1 Quality as meeting aims of society**

In this category quality was described as meeting individual and societal requirements. In societies the requirements are in the form of aims and expectations. Teachers were arguing from the fact that education systems or programs are aimed at meeting societal and national aims. The optimal achievements of the aims mean meeting societal requirements. In other words, the ability of education to develop knowledge and skills to meet the students' future needs is an important element of the quality of education (Parri, 2006; Hakielimu, 2007). Thus, quality was defined through the extent to which aims are achieved in schools. In this category teachers referred to two sub-categories: meeting requirement through teaching a balanced curriculum and meeting requirement through provision of self-reliance skills.

#### ***Implementing a balanced curriculum***

In education, the national requirements are presented in terms of the aims and objectives stipulated in different policy documents including the curriculum. At school level, the curriculum is one of the documents where aims and objectives are translated into teaching and learning. Curriculum implementation therefore,

is the means of achieving the aims of education as end results. The quality of education in this case is described from the way curriculum implementation meets the aims. In their responses, teachers argued that quality of education is obtained from a 'balanced curriculum'. According to Kamalanabhan, Teeroovengadum and Seebaluck (2010), a balanced curriculum is a holistic framework for the development of each learner through the process of learning. In the context of this study, a balanced curriculum is that reflects the needs of society which contains both 'practical' or experimental and 'theoretical or non-experimental' knowledge and information. Teachers' responses therefore, were found to vary in these two conceptions. Science, technical, and vocational teachers said that the curriculum offers practical knowledge as it offers hands-on activities, while others from the social sciences and languages argued that the curriculum in practice has more theoretical knowledge as there is no space to practice theories learnt in lessons.

The two way of conceiving the curriculum are presented here under: On the one hand, the curriculum in practice was reported to offer *practical knowledge* that leads towards meeting societal requirements. Teachers claimed that knowledge provided in schools is practical in the sense that it requires practice or 'hands-on'. In this aspect, experiments were claimed to offer knowledge that enables the learner to put the learned information into practice. This kind of learning was reported to be preferred by students as it offers immediate exposure to action-oriented knowledge and skills and hence promotes the quality of learning as chemistry – biology teacher stated:

Experiments are much preferred contents for offering 'hands-on' practical knowledge to the students... through them students are exposed to practice learned knowledge and skills. During practical lessons, students are given questions and specimens together with instructions to follow in order to discover what is required and hence it helps them in developing interests in the lesson. (Baki)

The element of quality in this statement can be understood from the ability to practice the learned knowledge and skills, and hence the development of interest in lessons. Apart from experiments, another method of teaching that was reported to have a similar function to both science and other non-science subjects was study trips. Teachers claimed to take their students on study trips to places where they can see work done and relate it to learnt knowledge. The expected end result from the visits is improved and motivation in learning, as stated by Kisa:

The curriculum is practical because, although not frequently students are taken on study trips to places where work is related to the topics covered in

classes for them to relate content learnt and work. In the field students meet experts and are explained the way work is done and could relate with what is taught in lessons. This helps in building students' interest and motivation in learning, (Kisa,).

Kisa is a female Geography teacher who has taught her subject in more than 10 years argued that teaching is successful if lessons are paired with study trips. This study therefore, considers study trips equivalent in scope to experiments done in natural sciences.

In both statements, the balanced curriculum is conceived to allow the application of learned knowledge. In this case integration of teaching and experiments or excursions is the means to promote quality learning and thus lead to the quality of education. In other words, teachers conceived the quality of education from the ability of students to apply the learnt knowledge and skills.

On the other hand, the curriculum was conceived to offer *theoretical knowledge*. In this study, the term 'theoretical knowledge' is conceived to mean 'non-experimental knowledge'. In their responses the teachers criticized the present secondary school syllabus for not offering practical skills. They argued that the syllabus contains abstract knowledge in which students are not given opportunities to practice. The knowledge learnt is just for the preparation of individuals to join higher education and not for work or life, as one teacher stated:

The secondary school syllabus is good for further education only and not for working and life skills. For working skills, it is useless because it is too theoretical. (Mosi)

This critique stems from the fact that the current syllabuses for non-science subjects in secondary school do not integrate the components that offer students skills for work and life. The teachers reported that students are drilled through the contents without practice; as a result, they only possess temporary and abstract knowledge, which can only be applied answering examinations meant mainly for entry into higher learning, but not in work and life.

### ***Acquisition of knowledge and skills for self-reliance***

In relation to what has been discussed in chapters one and three, education for self-reliance (ESR) aimed at providing both work and life skills to individual learners. The knowledge and skills acquired in schools made students to actively participate in their societies. Even though socialism seems have been abandoned, ESR is still considered an important component in education. It is a philosophy which puts more emphasis on integrating education and work. As previously

discussed, the advocacy in the philosophy was terminal and complete education, meaning it should offer the necessary requirements for individuals in work and in life (Nyerere, 1968b). In the interviews, teachers described the skills for work as those directly applied in various work situations, while skills for life are those that enable an individual to manage daily life. In the teachers' responses, these skills were used as aspects, to describe quality.

Teachers used the terms *skills for work* to refer to the societal and national requirements. They argued that the country and its societies require people who can demonstrate different skills in work. These skills were reported to be obtained in subjects related to different careers where theory and practice are integrated. Teachers gave evidence of their subject areas to argue for the provision of skills for work. Woodwork and plumbing were cited as examples of subjects that were used to offer skills for work. However, these together with other technical subjects were claimed deteriorating as they are not taught in schools as used before:

In regard to technical subjects, I really now feel we are at a crossroads and certain decisions have to be made to ensure these subjects are back and taught in schools. These are no longer taught in schools and some teachers have left teaching for other jobs since their subjects were abolished. I believe subjects like woodwork and plumbing were useful in offering skills for work to our students. The skills are now highly needed, but where are they? There is no more technical education in schools. (Pat)

In this statement, Pat was trying to react to the vanishing of technical subjects in secondary schools because they are not taught any longer. In support of Pat's argument, in 2004 the government of Tanzania abolished technical and vocational subjects in secondary schools. The responsibilities were transferred to the ministry responsible for vocations. After the abolition, specialist teachers were asked to teach other subjects offering general knowledge like civics or general studies. This attempt has impacted on schools, as some teachers have left teaching and some of the machinery was dismantled as the laboratories were used as normal classrooms.

Despite that the ministry of education is on the efforts to revamp technical education in secondary schools, but the remaining challenge is on the resources. Technical teachers are lacking as well as the machinery as they are expensive and schools cannot afford.

On another aspect of *skills for daily life*, teachers complained that schools are not offering skills that can help individuals in their lives, but instead preparation is done for students to pass examinations. They claimed that secondary schools



are producing low competencies in terms of life skills and hence students leaving secondary schools remain dependent on their families:

In school we don't teach our students for day-to-day life: instead, we only prepare them for examinations to be able to join further education. This is too theoretical, abstract and void of real life. Subjects like poultry in agriculture, commerce, cooking and needlework, which offered real life skills need to be revised. As a result, students cannot sustain themselves, but instead they remain dependent on family income. (Mondi)

With Mondy's conception, diversified subjects are more effective in offering life skills. The abolition of diversified subjects, therefore, has contributed to the preparation of individuals who cannot manage their own lives and thus lack self-reliance skills. Teachers claimed the knowledge provided was being abstract and theoretical and just reproduced in examinations. From this logic, if the knowledge offered in secondary school is low level, input into higher education also becomes poor, which can lead to a vicious circle.

### ***Reflection***

Teachers conceived quality from meeting the aims of society and the in their responses they described the quality of secondary school education from promoting of self-reliance skills. Technical and vocational subjects were given as evidence of offering skills that are useful in both work and life. This brings the sense that societies are conceived to require people with self-reliance skills. Other responses described quality from the curriculum in practice. Interpreting from the results, conceptions about quality were noted to lie in knowledge and skill areas: In the knowledge area some responses have shown that teachers were talking of knowledge used both in work and life. The knowledge in this case means information or facts acquired which are related to life or work. From the skills area, the responses referred to the ability to perform different tasks in work or life. Teachers referred self-reliance skills to the ability to perform by individual students in schools and societies.

In brief, teachers conceived quality as the possession of both work and life skills by students. These self-reliance skills were the needs of both the nation and society in the development of economy. In this case the country needs more people who are knowledgeable and skillful and who can collectively develop the economy in different fields.

#### **5.1.2 Quality as individuals' achievements and capabilities**

Teachers reported that achievements in national examinations and students' capabilities are two areas that are used as standards to assess the quality of education. Achievements refer to success in examinations while capabilities are

the experiences, abilities or know-how the students acquire through learning. Teachers used excellence in achievements and capabilities to describe the quality of schools and of individuals.

### ***Achievements in examinations***

In the secondary school cycle, students are provided with national examinations in form two, four and six, that is at the age of 15, 17 and 19 years old. Majority of the students enter secondary schools at age 14 years. In Tanzania the term form is used to refer to grades in secondary schools. In the interviews therefore, teachers reported that national examination results are used as standards to assess the quality of education at the respective levels. It was argued that assessment is done through rating both the schools and individual teachers in terms of being effective in their outputs. Teachers claimed that parents use the examination results to judge the quality of schools for their children. On the other hand, teachers in their subject areas are rated from the number of students who score highly in the national examinations. These two aspects were taken to represent teachers' understanding of the notion quality when examinations are used as standards

With regard to the *quality of schools*, teachers reported that the achievements of students in the final examinations are used in rating the schools. Rating was said to be done in relation to the number of students scoring highly in the examinations. According to the National Examination Council of Tanzania (NECTA) standards, A and B are higher scores, where A is a distinction, excellent or very good, and B stands for good. Other scores are C for fair, D for satisfactory and F for unsatisfactory or poor. As discussed in chapter one, these scores are further interpreted in divisions and the higher achievers are those who score division I and II. In the interviews, teachers explained that a 'quality school' is one which the majority achieves high scores in the national examinations:

The quality of education in schools depends to a great extent on the achievements of the students in examinations. If there are high standards in the performance of the majority then that is a 'quality school'. This means how many get division I and II can help in advertising the school.  
(Teti)

These results are in line with other studies, which revealed that parents are struggling to find quality schools for their children to learn (Hakielimu, 2007; Makombe et al, 2010). In the struggle, the schools targeted are those producing high achievers in final examinations and in most cases are special schools

described in chapter two. Private schools also use the high achievements to market their school and enroll more students.

In the school context, achievements in examinations are used to rate the *effectiveness of individual teachers* in their teaching (see also Hakielimu, 2007). It was reported that, an individual teacher is rated and possibly rewarded from the number of students scoring high marks. Teachers argued that the teacher who produces a great number of As' and Bs' in the final examination is an effective or 'good' teacher. They further argued that school management uses the examination results to reward effectiveness in teaching. Thus, a teacher with a greater average number of high scores is rewarded:

A good teacher is one who can make students pass the national examinations. If the majority of the students pass the examinations then you are a good teacher and you can get rewards...In most cases we teach following the format of examinations to be sure students get the skills to answer examination questions. (Funta)

Besides the importance in promoting effectiveness in teaching, the examinations were reported to influence the content taught in schools. The argument of teaching following the examination formats provides evidence that some contents in the school syllabus are not taught at all as they are rarely examined:

Some contents are even not necessary in the syllabus. Sometimes I skip them in my teaching as I feel they are less important. Why should I continue teaching them when they are not examined? (Ani)

This evidence indicates that teaching in secondary schools is not connected, as some topics are skipped because they rarely appear in examinations. The disconnectedness therefore affects students' learning as topics in the syllabus are arranged in order of merit and interdependence, from known to unknown. Thus, following examination formats can jeopardize other topics or contents. Although skipping was related to topics not examined, but the reality includes also topics that teachers felt difficult or where teachers lacked knowledge and skills to teach.

### ***Appropriate use of student's capabilities***

Another element that was reported to be used in describing the quality of education is learners' capabilities. Teachers assessed the quality of education from the capabilities shown by graduates in different tasks. Students' capabilities are abilities or potential in different areas. In schools, students' capabilities were reported be observed in terms of cognitive potential or social abilities. Cognitive potential is used in the same way as the power of knowledge, and social abilities are the aptitudes shown by an individual in the school or society.

In the education cycle, the *cognitive potential* was reported to be acquired in the form of self-confidence, creativity, imagination and problem solving abilities. Teachers stated that these capabilities can be shown in different areas. They argued that with cognitive capabilities students develop confidence, as they can demonstrate learning:

Although not at higher level, students in secondary schools develop different capabilities such as communication, self-confidence, creativity, imaginative approaches, and problem-solving. Through learning, students become curious as they want to try out the knowledge learnt in lessons. (Kitia)

The ability to demonstrate the learned knowledge is an indication that the aims are achieved and students have acquired the required knowledge. In this perspective, the quality in secondary school education was conceived to facilitate though at low scale the development of different capabilities among individual students.

Furthermore, quality was conceived from *social abilities*. Teachers defined social abilities in terms of development and appreciation of national unity, ethics, respect, personal integrity and readiness to work as stipulated in the aims. Evidence like communication, living and working together, interaction in lessons and out of classrooms and occupying different leadership roles are examples of social capabilities. In lessons, these capabilities are acquired through different subjects offering general knowledge:

Students acquire social capabilities or skills in subjects like general studies, civics and history. In these, students are taught about national identities and culture, which helps them to acquire attitudes like respect, ethics, personal integrity and readiness to work. (Manka)

To achieve quality in education, appropriate use of these capabilities is required. The ability to communicate and interact in lessons makes learning become easier. As discussed in previous chapters, ability in the language of instruction is an important element of the quality of education. People who have a good command in the language can communicate and interact with ease and can learn with ease. From this way of thinking quality was conceived as appropriate use of the social abilities. How education leads individuals to benefit from their social capabilities can be used to describe quality.

### ***Reflection***

Quality in this category has been related to high achievement in examinations and appropriate use of capabilities. The analysis has proved that teachers conceived quality as high achievement in the final examinations. These results

support other research which also found that students, parents, administrators and teachers assess quality according to achievement in examinations (Malekela, 2000; Wedgwood, 2007; Hakielimu, 2007). These studies also showed that parents use examination results to choose schools for their children, while school administrators use the results for rewarding purposes as a means to promote effectiveness among students and teachers. It is important that the formats for national examinations be reviewed so as not attract skipping to some topics and affect curriculum coverage.

In addition, quality is associated with an appropriate use of individuals' capabilities. Teachers have argued that high level command of the language of instruction simplifies interaction, and communication among students and teachers. The ability to work together can be interpreted in terms of learning in a group, which is a strategy towards achieving quality learning. In other words, the ability to take turns during instruction can lead to the development of listening skills which are also important in learning.

In brief, quality in this category is conceived in terms of the outputs of an education system. Both examination results and capabilities are the output individuals have to acquire in education. While examinations are used to describe quality from cognitive domains, capabilities on the other hand expose the psychomotor and affective domains. In other words, the ability to effectively perform different tasks in a way leads to the possession of psychomotor and affective abilities.

### **5.1.3 Quality as possessing competence**

As has been noted in the literature review, quality is defined to be fit for purpose, referring to the competences demonstrated by individuals (Lomas, 2002; Parri, 2006). Different terms like ability, skills and aptitudes are used synonymously with competence to imply fitness for purpose. In this category quality was described as possession of competences in the form of identities, representing mastery in content knowledge and high command in the language of instruction. Teachers therefore described personal identities as one form of competence acquired through mastery of content knowledge. That is to say, a person is identified from the areas which he or she is competent in. For the teachers, content knowledge was meant as the subject content knowledge or subjects of specializations. This is similar to what Gholami (2009) called practical knowledge, where individuals are identified from their specialization. Similarly in the interview, teachers identified themselves or were claimed to be identified by students and other people from their subjects of specialization.

Command in the language of instruction was reported as another important element in building competence. Students with mastery of and fluency in English were reported to have advantages in learning. Likewise, teachers with command in the language are fluent in teaching. In this sense, command in the language of instruction is an important aspect of quality.

### ***Possessing of identities***

Teachers conceived quality to relate to high possession of identities. Identities are personality characteristics that make an individual be easily identified. Teachers therefore, argued that competence is evidently shown through the possession of competence demonstrated by individuals. Two kinds of identities were amplified in the responses: self-identification and social-identification. Self- identification means the ability of an individual to talk of the self, while social identification is when an individual is valued by others. In both identifications, a high level of competence is required and hence teachers used it to describe the quality of education.

From *self-identification aspect*, teachers argued that people who can identify themselves are those who possess a high level of knowledge and skills. Mastery in the subject of specialization was cited as one example of a high level of knowledge and skills. Teachers said that poorly trained individuals fear to expose their identities because of a lack of knowledge and skills in their areas of specializations. This means they cannot demonstrate their specialization and thus cannot talk of their abilities. In this case, the ability to identify the self requires confidence and possession of a high level of knowledge and skills. Teachers' self-identification was vividly revealed in the responses, as some teachers were free to express themselves in their professional subject areas of specialization.

I like teaching because it makes me happy and confident I like students with determination in learning as they encourage me in my teaching. (Zari)

In the statement, the teacher was free to identify himself in the teaching profession. The statement shows confidence, which is a sign of possession of high competence.

More specifically, teachers were free to talk of the subject areas they teach. They argued with references from their subjects of specializations, where the term mastery was used to imply competence in the subject:

...I love teaching History is my specialty and my students call me 'Mandara', a name of one of the emperors taught in history. I am not scared because it is just an identity from the subject I teach. .... it is ok to me because the name is not used in a bad way. (Tunu)

It is important to note that the personal identities referred in this aspect reflect the positive characteristics of an individual. Negative characteristics were not included as nobody can identify in a negative way.

*Social value or respect* was referred to as the identity of an individual to other people. According to Bagnoli (2006), respect is a moral attitude addressed by a 'person in virtue of being a person', that is being autonomous and accountable in one's action. People with competence regard themselves as capable of accounting for their actions and in feeling free from their actions. Teachers related values and respect given by other people in society to the competences they possessed or were possessed by their students. In their explanations the teachers claimed not to be valued because of the low competences possessed by their students. They further argued that people in society use students' capabilities and achievement to assess and value the teaching profession as well as teachers' competencies:

Teaching is not valued or respected any more. People in our society don't value this profession from the kind of people we produce. Students finish secondary school with low competences, as some cannot be differentiated from those who ended at primary school level. So it is seen as a worthless job.  
(Mosi)

From this statement, value to the profession is related to competences in terms of knowledge, skills and abilities of the school outputs. The teachers argued that the low status of the profession is because of the poor quality of individuals prepared by the schools. In this, teaching is valued or teachers are respected by society if they prepare individuals with high competences to perform specific societal tasks.

### ***Competence in the language of instruction***

Mastery and fluency in the language of instruction were two aspects that were also used to describe quality in terms of possession of competences. Teachers reported that quality of teaching and learning depend heavily on the ability of teachers to interact with the students, and hence mastery and fluency in the language are important elements. In interacting with students, teachers use both spoken and non-spoken language. However, mastery and fluency are assessed in spoken than in non-spoken language.

Teachers explained that classroom interactions are enabled if there is *mastery in the language of instruction* and in the case of secondary schools this means English language. Mastery was meant the high level of command, possession of high knowledge and skills to the language. They argued that to be able to interact both the teacher and the students have to possess knowledge and skills in

the language. Command in both spoken and written knowledge and skills are needed for attaining quality:

The quality of classroom interaction goes together with mastery in the language of instruction, I mean English language. Both teachers and students have to master in the language. We have to possess important language skills to enable to interact in the process of teaching and learning. (Jeshi)

Mastery in the language of instruction makes the lessons become live as both the teacher and students are free to interact and hence teaching and learning becomes enjoyable.

In teaching, fear of using bad language among teachers, was reported as a factor in poor mastery of the language of instruction, hence affecting the quality of teaching and quality of education in general:

I face difficulties in using English in my teaching. Sometimes I use Kiswahili because I fear to use bad language in front of the class. (Teo)

The term bad language was used to mean mistakes in using the language. Possible mistakes that were reported are the common mistakes including poor pronunciations and spelling mistakes. Teachers therefore, were ashamed of making such mistakes in front of their classes, instead Kiswahili was used.

Furthermore, poor reading ability was also related to lack of mastery in the language of instructions. Teachers said their students are poor in the language because of their poor reading habits:

Students do not have the habit of reading English novels that could help in improving their mastery in the language. Books and magazines that are most liked are those in Kiswahili. (Katu)

If we take positively the argument made by Katu above, it can imply that teachers with low mastery in the language have also low reading habits. It is therefore, important that a policy be made and teachers are encouraged to read more books in order to improve their mastery in English.

Mastery alone cannot improve interaction in the lessons, but also needed is *fluency in the language*. Teachers reported that fluency is important in the teaching and learning process in secondary schools as it makes easy the communication between teachers and students. According to the teachers, the most spoken language in schools is Kiswahili while the classroom instructions are required to be in English. In this case, code switching was reported as a common practice in subjects that use English as the medium of instruction:



Sometime it is difficult to use English throughout the lesson because it needs fluency in the language also students cannot easily follow the lessons. Code switching is important in order to bring common understanding in the lesson. (Linu)

It is true that code switch are important in bringing common understanding in lessons, but it should not extend to total shift. Teachers have to code switch where necessary and it should not all the times.

Teachers further revealed that fluency is not only a problem in lessons, but also in common staff forums which use English as the medium as this statement clarifies:

Fluency in English is a challenge to teachers. This appears in most of our staff meetings: if it is in English it limits much talking among members. Since people fear to use bad language only those who are fluent can talk in the meeting. (Jeshi)

The statement by Jeshi imply that in most cases meetings and staff forums are mainly conducted in Kiswahili in order to allow peoples' discussion and contribution.

In addition to the language being emphasized in teaching, it was claimed as discriminatory to both students and teachers. Teachers fail to participate in meetings conducted in English as well as students with low command in the language lag behind in learning. However, the results are in line with the findings in other research, where poor command in the language of instruction is a factor leading to poor quality of education (Senkoro, 2004; Qorro, 2006; Wedgwood, 2007).

### ***Reflection***

Two aspects resulted from teachers who conceived quality as the possession of competences. One group related quality to command in the language of instruction, while the other group related to possession of identities. Supporting the two aspects, teachers expressed to have afraid to use bad language in lessons and staff forums as a sign of poor command in the language. Kiswahili was reported to influence as it is the most spoken language in schools, leaving English at risk. However it may be discriminating to continue using English to the people who cannot manage to use it fluently. The results also show that the possession of identity is a sign of high competence. Both self and social identities are important elements of quality. Value of an individual and of the profession was related positively to possession of competence.

#### **5.1.4 Quality as meeting the challenges in education**

In chapters one and three, different challenges that hinder the smooth provision and acquisition of secondary school education have been discussed. In the same line of thinking, teachers conceived quality as meeting the challenges that hinder teaching and learning in secondary schools. In other words, quality was understood as the ability of education to meet the challenges in schools. In the analysis, it was noted that overcrowded classes, lack of teaching and learning materials, and a poor teaching force were explained as the major challenges hindering the quality of teaching and learning in schools.

##### ***Dealing with overcrowded classes***

The discussions in the previous chapters have shown that, access to secondary school education has increased. The increase has led to an imbalance with the resources available (Makombe et al, 2010). Large or overcrowded classes are among the imbalances caused by the increase in enrolment. In teachers' responses, large classes were reported exceeding the Ministry standards. According to the Ministry of Education and Vocational Training, a normal class size in secondary schools comprises a maximum of 40 students. However, this is not the reality in schools, as teachers reported teaching classes exceeding 40 students because of lack of classrooms and lack of teachers.

Newly constructed schools were reported to have too few classrooms to accommodate the increasing number of students selected to join secondary schools. In their explanation, teachers reported that *lack of classrooms* caused overcrowding in schools. Teachers thought that the few classrooms are utilized maximally to ensure every student is accommodated. Students have to squeeze into the available classes in order to be taught, as one teacher reported:

In this school the number of students is big compared to the number of classrooms we have. There are few classrooms and the students are many, so they have to squeeze into the few rooms available. (Anza)

In the context of this study, large classes are taken to mean that students are crowded, as the rooms are small or crowded because of the large numbers of students and no more space is available. In Tanzania, large classes exist because of the poverty in different societies, and the speed of constructing new classroom to meet the demand is low in some schools. In this case, students selected to join secondary schools in some areas sometimes remain at home waiting for the construction to be completed:

Because there are not enough classrooms, students selected to join form one sometimes have to come in different shifts, depending on the number of

classroom available. Because the construction is slow, sometimes students have to wait for a second and sometimes third selection. (Tina)

The delay in joining school was reported to range from between one to three months, depending of the speed of completing the construction of classrooms. For continuous teaching, in three months a large portion of the syllabus has to be covered. But because classrooms are insufficient classrooms, both the late and earlier registered students are combined. In this situation teaching becomes chaotic. The late enrolled students are drilled and forced to cover the already covered syllabus so as to be in line with others.

Another aspect of large classes is *lack of teachers*, where combining classes was reported as an alternative strategy, especially in the science subjects, English and mathematics which were claimed to be severely understaffed. It was argued that combining classes was done in order to reduce teachers' workloads and to enable them to perform other duties in school, as illustrated in the following excerpt:

...to reduce the work load I combine more than one stream, as I am the only mathematics teacher in this school. Apart from teaching I have to do other activities like marking students work books, be the teacher on duty, supervise clubs, and I feel these are too much for me. (Kitia)

The work overloads was reported as a factor leading to fatigue among teachers and hence reducing efficiency and effectiveness in work. Teachers claimed to have big workloads caused by insufficient number of teacher:

I teach mathematics in eight classes, each with six periods a week. I think this is too much for me; instead I combine the classes to reduce the workload. (Mati)

I teach both mathematics and physics and I am the only mathematics teacher in this school ...I have to teach 16 streams, with six periods per each stream in a week. I combine classes but still I cannot teach all the periods as I cannot manage to locate them in my timetable. Sometimes I have to teach in the evening. (Eli)

Referring to the Ministry of Education in Tanzania, the number of hours for mathematics teaching is 2 hours and 40 minutes per week being divided into six periods of 40 minutes each. Thus from this standard workloads can be counted from the number of classes an individual teacher has to attend. In this case, Mati has to teach 48 periods per week, while Eli had 96 periods per week. Workloads are thus not manageable for individual teachers. In general, in almost all schools visited, the teachers in these subjects claimed to teach more than the Ministry norm.

Teachers also reported that large classes affect the selection of teaching methods. Lecture with ‘chorus’ answers were reported to be used in most of the lessons in schools. The term chorus answers means whole class or group voiced answers, where students all together give the answer to the question asked. In this case interactive methods were claimed to be difficult to use as they require few students and more space, which cannot be obtained in overcrowded classes:

I teach English and I usually use the lecture method because it is difficult to use participatory methods because of the big number of students in my classes... the rooms are small and students are overcrowded. So it is difficult to use methods like group discussion as it needs more space, each class has more than 60 students while the capacity of the rooms is 40. (Chao)

In this case the class size has influence on the selection of teaching methods. In other words, the failure to use interactive methods reported by Chao was connected to the number of students in classes. However, this study did not produce evidence on what number is reasonable for interactive methods. Based on the Ministry standard, a class of 40 is assumed normal for interactive lessons although in other contexts it can still be claimed to be large.

If we also agree from research that low level learning is obtained from non-learner friendly methods or teacher dominant methods of teaching (Kember, 1997; Dembélé and Lefoka, 2007), then the teaching from Chao’s argument can be found to limit students’ learning and hence lead to low quality of education.

### ***Addressing the lack of teaching and learning materials***

In secondary schools, lack of teaching and learning materials was reported as the most recurring challenge among secondary schools in this study. Teachers described poor quality of education to be caused by lack of teaching and learning materials. In their responses, they argued that the unavailability of instructional materials and lack of creative skills to fabricate have led to poor teaching, which has greatly affected the quality of education in secondary schools.

The *unavailability* refers to lack of such materials that are supplied by the government and/or other agencies. These include text books, laboratory equipment and other similar materials that need financial support to be able to purchase them. Teachers said that the student-book ratio in some subjects cannot be defined as books are not sufficient to enable students to access and read:

The school has no library, and few (10) commerce text books so it is difficult to distribute them to students in class. I have to give notes to students as the only source of information as they cannot get books to read in school. (Jitu)

The deficiency of textbooks, especially in rural schools, has made students rely only on teacher's notes as the only source of materials. In this case, teachers make notes and give or sometime sell them to students in the form of handouts. In such a situation students from poor families are discriminated against as they cannot manage to buy the handouts and hence remain challenged throughout the education cycle.

Other materials reported lacking were science equipment, where it was claimed that some schools have no apparatus at all that can be used to teach science subjects:

...the school needs more teaching materials to enable us to teach effectively. Right now there are few materials and in some subjects like science there is none at all. How can a teacher teach effectively in this situation? (Modi)

The non-availability of science apparatus in schools is a serious issue in the teaching of these subjects. These subjects depend heavily on experiments for students to be able to acquire practical skills. If schools lack the apparatus, what is the future of science in Tanzania? Alternatively, teachers reported teaching using the alternative to practical approach.

In this school there are neither laboratories nor equipment for students to do experiments; instead we teach science using the alternative to practical mode. This is too theoretical as students can't see the results of the experiments. (Teo)

The alternative to practical method is a simplified way of teaching science subjects, where instructions and procedures for conducting experiments are provided together with possible end results. In most cases students cram the answers in order to be able to answer examinations.

Although teachers claimed the schools lacked books and science teaching materials, other materials like charts and models were also reported missing. In their responses teachers claimed to lack *innovative or creative skills* to improvise their own materials. From this claim, teachers described quality of education from the ability to offer knowledge and skills to improvise teaching materials. The teachers admitted that some teaching materials can be found around schools, the only missing is the knowledge to make them:

I know there are a lot of materials around the schools but we can't use them as we lack skills to make them. We need to have people with technical and fine arts skills so that they can help us in drawing some charts or making models. (Ani)

The argument from Ani is an indication that teachers lack skills to draw, and make models that can be used in teaching, skills that could have been acquired during initial teacher education. What steps to take in empowering teachers with skills to make their own materials is developed in section 5.2.

### ***Dealing with the problem of a poor teaching force***

Poor quality of the teaching force was another reported drawback to the quality of education in secondary schools. Teachers argued that to achieve quality in secondary schools education, the issue of the poor teaching force has to be dealt with accordingly. A poor teaching force meant teachers in schools are either poorly trained or untrained. The two cases were reported to exist in secondary schools especially in rural areas.

*Poor training* was noted from the responses when teachers claimed to lack skills for teaching, which led them to skipping difficult topics. The difficulty was taken to mean that teachers lack knowledge or skills, or both, to teach that topic. The lack of knowledge and skills of teachers was related to poor training during initial teacher preparation. Thus, a vicious cycle of poorly trained teachers being trained by weak teacher educators producing weaker teachers was noted:

The problem in teaching is not only in secondary schools, but also in teacher colleges, as some of us finished courses without completing the syllabus and acquiring skills to handle challenges in teaching. For example, in my subject there are some topics which were not taught in colleges so I find them difficult to teach and then I also skip them in my own teaching. (Ani)

In different contexts difficult topics can have various meanings. Either the topic is abstract, tricky and complicated to teach, or teachers lack the skills to teach it. According to Ani, difficult topics are the result of poor training of teachers. In this case, if the topics in the syllabus are arranged in order of their dependence on one to another, then skipping implies creating gaps in students' learning and affecting the quality of learning.

*Untrained teachers* were reported to exist in some schools where trained teachers were missing. An untrained teacher meant persons who have not been trained in teaching but still are employed in schools to teach. In their explanation, teachers amplified two types of untrained teachers: those who completed a general degree and those who just completed form six (upper secondary education). The untrained teachers are employed to cover the lack of trained teachers in schools. This was reported more in rural schools, where trained teachers were reported to be unwilling to teach:

With the increase of secondary schools a good number of people completed a general degree and form six leavers have been absorbed as teachers to cover the shortage of teachers in secondary schools. Without this opportunity they probably would be jobless. But now they have jobs in schools although they lack important knowledge and skills in teaching. Without them schools in rural areas would also lack teachers as trained teachers don't want to teach in rural schools. (Kisa)

Though the lack of trained teachers has created the opportunity for people with general knowledge to enter teaching, the practice is dangerous as it is leading to poor quality of education. The lack of trained teachers is heavily affecting rural schools, as the many challenges they face make trained teachers reluctant to stay and teach. But these are the places where people need more education to develop societies and acquire the 'better life for every individual' that is emphasized in the ruling party manifesto.

### ***Reflection***

In summary, teachers have conceived the quality of education in secondary schools as meeting the challenges in education. The challenges amplified in this category are those related to teaching and learning, or in other word the challenges at classroom level. To meet these challenges, a total commitment and collaboration between different actors at individual, school and national levels is needed. At the individual level, it was noted that the challenges are not uniform with every individual teacher. Hence there are some teachers who are more challenged than others. At school level, it was also noted that schools differ in the way they are challenged. Lack of classrooms and untrained staff were reported more in rural than in urban schools. At the national level, almost all the challenges need intervention from the government and hence require funding. Activities like the construction of classrooms, recruiting of more teachers and supplying teaching materials to schools need to have adequate budgets.

## **5.2 Conceptions about quality improvement**

The second research question aimed at obtaining insight into teachers' conceptions of the quality improvement of secondary school education. Conceptions for improvement were based on the assumptions that teachers possess a thorough understanding of the education provided in secondary schools and also have different experiences in teaching. Thus, teachers conceived quality improvement in the ways they experienced secondary school education, and their conceptions were categorized into two broad categories:

1. Quality improvement as enhancement of the education system
2. Quality improvement as empowerment of individual

In further analysis sub-categories were identified which reflected the ways teachers conceived of improving the quality of secondary school education. Altogether five sub-categories were formed. An overview of the categories and their sub-categories are presented in the table below:

**Table 8: Teachers’ conceptions about quality improvement**

Categories	Sub-categories
Quality improvement as enhancement of systems	Improved teacher earnings and compensation
	Improved school contexts
	Improved teaching practices
Quality improvement as empowerment of individuals	Improved teacher preparation
	Developing knowledge and skills for developing teaching materials

**5.2.1 Quality improvement as enhancement of systems**

In this category, teachers’ experiences of the situation in secondary schools were used to establish the category of quality improvement as enhancement. Variations in experiences resulted in three sub-categories related to improving the circumstances that affect the quality of education in schools. Teachers talked about improving teacher earnings and compensation, improving the school contexts and improving classroom practices. A detailed elaboration of each sub-category and its aspects is presented in the proceeding discussion.

***Improving teacher earnings and compensation***

It was argued in literature that attaining quality in education is difficult if teacher motivation is not improved (Komba and Nkumbi, 2008). What can schools produce if teachers are de-motivated, dissatisfied or have lost their work morale? This argument sets teacher motivation as one of the prerequisites for improving the quality of education (Davidson, 2006; Benell and Mukyanuzi, 2005). It is an important area in that teachers are the main implementers of the curriculum and hence their motivation can lead to successful teaching and learning and achieve the desired targets. It was noted that teachers related motivation to improved earnings through improved salaries and compensations. Teachers claimed to be



dissatisfied with the salaries paid. They felt that what is paid is not proportional to the work they do in schools. They were also dissatisfied with the uneven promotion scheme. It was reported to be uneven because promotions were not given to all eligible teachers and not on time.

*Improving teachers' salaries* was reported as a predictor for increasing teacher motivation with the potential to produce quality teaching. Teachers complained that the increase in their salaries should correspond to the roles they perform in schools. Besides teaching, teachers have to supervise extra curriculum activities like subject clubs, debates, and sports and maintain the school environment. To motivate teachers, these activities need to be compensated. Teachers argued that teaching is a demanding profession and hence it has to be paid highly:

Teaching is a demanding profession because teachers in schools are required to teach and supervise other extra curriculum activities and at the same time acts as parents, counselors for matters that need to care for and support students, and as social workers as they have to resolve conflicts among students and other similar roles that can be required by students in schools. But they are paid low salaries and as a result we are de-motivated and cannot volunteer to perform all the required roles. (Tina)

The teachers argued that with their salaries, they felt that extra curriculum activities were not paid, as there were no differences with other staff who do not work longer hours. In addition, teachers in rural schools had more complaints about low salaries as it affected the welfare of their families. They said with their small salaries they have to meet all the challenges in rural areas including non-availability of social services. They claimed to suffer more as they have to travel long distances to reach services like banking and hospitals, which are mainly located in urban areas. In Tanzania salaries are paid through bank accounts, and therefore, employees in rural areas have to travel to towns where the banks are located in order to receive their money. In this case, a portion of their salary is spent on transport to reach these social services.

In order to improve the situation in schools, *special allowances* were suggested as an alternative. Teachers argued that in order to retain trained teachers, a special allowance has to be introduced for teachers who volunteer to work in rural schools. Teachers commented that the allowances can serve to compensate the costs incurred in the course of travelling to towns:

We are paid salaries through bank accounts, so we have to travel long distances to towns to receive salaries and other social services like medical treatment and shopping for our families. With this the salary is not enough to

sustain teachers in rural schools. The government has to rethink special allowances for teachers in remote areas. (Geli)

Teachers in urban schools appealed for transport allowances. They claimed that much of their salaries are spent on paying fares for town buses to and from their schools. In this case *travelling allowance* is important to teachers in both contexts.

Teachers wished to be paid teaching allowances to cover the life challenges in both rural and urban areas. In their arguments it was noted that teachers spend some of their working time giving private tuition as a means of increasing their earnings. The term tuition meant private classes where students pay for the lessons taught. This was reported been done in order to supplement the low salaries. Teachers claimed that the introduction of teaching allowances would increase their pay and thus make them satisfied:

Performance in school is deteriorating because teachers spend little time teaching in schools. The rest of their time they go and teach private classes to get extra money. I think the government has to rethink about introducing teaching allowances that could supplement the low salary and hence make teachers comfortable and willing to stay and teach in their schools. (Moze)

In the late 1980s Tanzania introduced teaching allowances as a way to motivate teachers in their profession. But because of poverty, the country could not manage to sustain it and hence it was abolished. A re-introduction was therefore predicted to raise teachers' morale at work.

Another aspect that was reported to need improvement was *improving the promotion scheme for teachers*. Teachers said the current promotion scheme is poorly structured in the sense that some teachers claimed to have worked for a longer time without being promoted, while others have fewer years but have had promotions. This was related to a poor promotion structure and was reported to reduce motivation in the profession:

I feel discouraged to continue teaching as the criteria for promotion are not clear. On my side, I have never had any promotion since I started teaching, and it is now seven years. It is not fair that other teachers employed after me have been promoted and now have a bigger salary than me while we are teaching the same level. (Bonga)

The promotion of teachers and other staff in Tanzania is done every three years. The teacher service department (TSD) is the organization responsible for teachers' promotion, rewards and sanctions. Bonga's statement shows that the

schedule for promoting teachers is irregular as not all in the cohort groups receive their promotions in time and hence this area needs improvement.

This idea was also supported by other teachers, who claimed that the structure for promoting teachers is limiting as promotions are stratified in such a way that teachers with a certain level of education cannot exceed the set limits. In the promotion scheme teachers with a certificate can only be promoted to the Tanzanian government teacher's scale (TGTS) E, while teachers with a diploma are limited at TGTS F and TGTS H for teachers with a degree. The stratification was blamed for reducing the morale of experienced teachers as they do not expect to receive more promotions after reaching the limits:

If you reach scale F and you are a diploma teacher, then no more promotion is possible unless you go for a degree course. This condition therefore has acted as a driving force to young diploma teachers to apply for degree courses, but is discouraging for experienced teachers who reach this limit and no more promotion is made. (Geli, Anza)

According to this statement, the issue of salary scales limits needs to be addressed as it is discriminating against experienced teachers who reach the promotion limit. It was argued that many experienced diploma teachers are clustered together at TGTS F as they cannot attempt to apply for degree course because of the limited number of years remaining before retirement. To them it is de-motivating as no promotion is expected before their retirement.

In summary, improving quality was described in terms of improving the welfare of teachers through increasing their monthly earnings. The earnings were reflected in three areas: increasing the monthly salary, the introduction of special allowances and improving the scheme for promoting teachers. These were assumed to be the external drives that can motivate teachers in the profession, improve their effectiveness in teaching, and hence improve the quality of education in schools.

### ***Improving school contexts***

In this study, school contexts were referred to the environment comprising the necessary facilities. To improve the quality of education, teachers argued school contexts to be improved. They further argued that quality of education is failing because the school contexts do not offer an enabling environment for teachers to teach as well as for students to learn. The evidence was that schools are failing to attract and retain new teachers because of poor environment. Teachers said lack of housing, offices and other facilities like clean water and electricity make the schools uncomfortable places to work and thus, need improvement.

It was noted from teachers' responses that *lack of housing* is an important issue to be addressed, especially in rural schools. Teachers argued that in some schools it is difficult to get modern houses which teachers can rent. As a result, young teachers posted to these schools leave as they cannot manage to live in the traditional houses found in rural areas:

Schools cannot attract teachers because there are no school houses. Young teachers coming from urban areas where there are modern houses cannot rent a village traditional house. Instead, they come and then go back to town where they can find houses of their choice. Therefore, to attract and retain teachers in rural areas, housing is an issue that needs to be resolved. (Koni)

This study is in line with the a recent study by Hakielimu, where it is approximated that in the past five years of SEDP, only 4742 out of 89927 (5%) teachers houses were constructed as the result 1232 out of 9226 teachers that were employed in 2011 left the profession because their schools had no housing to accommodate (Hakielimu, 2011). In expanding access to secondary school, through SEDP, a policy was introduced that every ward has to build at least one secondary school. Communities have been given autonomy to decide on the place to build the schools. Some have been built in villages, where it is difficult for teachers to find houses as they all belong to families and are not for rent. Young teachers coming from teacher training colleges and university would want to work in places where they can get modern houses, mobile networks, electricity and clean water. To attract and retain them, especially for rural schools, housing is a prerequisite. It was also found in earlier studies that housing is a motivator for attracting and retaining teachers (Davidson, 2005; Komba and Nkumbi, 2008) and a factor to improve the quality of education.

Another aspect that was claimed to reduce motivation in schools is *lack of teachers' offices*. Offices in this case were taken to mean preparation rooms and common rooms for teachers' meetings. Teachers have been using normal classrooms as their staff rooms. They blamed the local authorities for putting more emphasis on constructing classrooms and leaving teachers with no offices, thus affecting their preparation time:

In this school there is not even one office for teachers to sit and prepare lessons. We have to plan our lessons at home as we cannot find a comfortable place in the school. It is discouraging for teachers, as the interest of the community is more on constructing classrooms than teacher's offices and housing. So in this school it is common to find teachers marking students, work books under trees. (Zote)

Lack of teachers' offices was experienced more in new community schools, where the construction of different structures is still in progress. However, priority in the construction has to include offices and other preparation rooms for teachers. Simple designs can be made and given to communities to allow parallel construction of both classrooms and departmental and general offices for teachers.

Schools were further reported to *lack other essential facilities* like tables, chairs and cupboards for teachers. Teachers claimed to have used student tables and chairs as the school cannot manage to buy furniture for them:

The school has few tables and chairs for teachers. Most of us use students' tables, but they are too small to put all of our materials. The school also has no cupboards that could help in storing some of our materials. It is discouraging to teach in such schools: we just continue teaching because it is our profession we love, however many leave and join other professions. (Boli)

As teachers use classrooms for staff preparations and staffrooms, using students' desks is not a surprise in newly constructed and rural schools. In most of the community plans teachers' furniture are not in the fore priorities.

The argument was supported by another teacher in one of the rural schools, who also revealed the difficult context of working in rural areas as essential facilities like water, electricity, and even working facilities like file cabinets are missing:

Expansion in secondary school education is not in step with basic supplies and facilities. In most cases schools can be found running without science laboratories, libraries, not even file cabinets for teachers, no clean water, and electricity. In general, the situation is worse for schools in rural areas. (Boni)

In general, the teachers posited out the areas that need improvement in schools. To be able to attain quality, especially in rural secondary schools, the issue of housing is important. Preparation rooms are also considered important, as teachers travel from home expecting to plan their lessons in schools. However, other facilities like clean water, electricity and health facilities should not be ignored to make schools have enabling environment.

### ***Improving classroom practices***

For improving the quality of education in secondary schools, teachers have to improve their practices. Classroom practices were reported to include the interactions in lessons and students' support. These were assumed to be fostered by improved language of instruction and regular inspection of schools. Teachers

posited that improving these elements can lead to improved quality of education in secondary schools.

Teachers reported that *interactions in classes* are difficult because of large classes. Reducing the class sizes was claimed to enable teachers to use interactive methods. In their responses, teachers reported that the construction of more classes and the employment of more teachers can meet the problem of overcrowded classes:

To be able to solve the issue of large classes, the government and SEDP has to increase the number of classrooms in schools. The number of teachers also needs to be increased to reduce the existing workloads of teachers in schools. (Zena)

This argument was supported by another teacher who reported that *student support is difficult* in large classes. She said that student support is difficult because the students are so many and thus the methods are mainly aimed at a whole class approach, meaning lecture methods and a whole class question and answer approach:

In large classes it is difficult to support students who lag behind in lessons. The students are crowded and there is not enough space to go around the class. The only method we can use is to lecture and ask general questions to see if students are following. (Rosa)

Both Zena and Rosa were of the opinion that increased classrooms and a larger number of teachers can improve interaction in classrooms. However, the suggestions are long term and expensive, as the construction of more classrooms needs more funds, beyond the current budget. Recruitment of teachers also is an economic question and also takes time, as the training takes two to three years. Possibly an immediate solution can be gaining knowledge and skills for teaching large classes. However, research is needed to find out what methods can be used in large classes. The findings can be used as a short-term solution while long-term plan for building more classes and recruiting more teachers are in progress.

Another aspect that was reported to hinder classroom interactions and thus need improvement is the *poor command in the language of instruction*, meaning English language. As presented in section 5.1.3 and as discussed in previous chapters, poor mastery and fluency in English is a factor affecting the quality of education in secondary schools. Admitting low levels of competence in the language of teaching in secondary schools, teachers made some suggestions for improving mastery. They talked of a clear language policy that could guide the

teaching and learning at all levels that use English as a medium of instruction instead of relying on individual school initiatives:

Right now schools have introduced their own arrangement to promote mastery of the language such as posters with ‘no English, no service’ or ‘speak English’ being posted at different places in schools. But neither teachers nor students, in or outside class can use English all the time. It is important that a language policy be introduced demanding speaking English like is in English medium schools. (Chezo)

The idea by Chezo has come at a time when the debate on the language of instruction is still fore grounded in Tanzania. The position of Kiswahili and English in teaching is being discussed. This study therefore can give voice to teachers about the use of the language. However, more evidence is needed to make informed decisions on which language should be used as the medium of instructions in secondary schools.

Teachers also argued that *regular inspection* of schools is useful in promoting classroom practices. They stated that school inspectors are the watchdogs in the teaching and learning processes and thus are useful in improving teaching practices. Inspections were thought to increase commitment and thorough preparation among teachers. Thus, regular inspections were predicted to change teachers’ practices:

I like inspections as teachers become lively in their teaching. When inspectors come every teacher has to prepare thoroughly in the subject that is going to be inspected. So this brings about more commitment among us. When there are no regular inspections, teachers remain relaxed and do not prepare lessons and teaching aids. (Mati)

From this statement, it seems that teachers do not prepare lessons when there are no inspections. This brings the sense that teachers lack commitment as they need to be pushed in their work. In this case, both inspectors and teachers have to sit together cooperatively and discuss matters related to improving the quality of education. This line of thinking was supported by Zari, who said that inspectors help in giving feedback to teachers on classroom practices. The teacher argued that inspectors give feedback on the lesson, where both strengths and weaknesses observed are later discussed together with the observed teachers. This helps to identify teachers’ strengths and weaknesses:

Usually after class observation the inspector and the teacher sit together and discuss the lesson observed. In the discussions both strengths and weaknesses

are exposed for the teacher to improve his or her teaching. I think this is important as it is aimed at improving teaching. (Zari)

According to Mati and Zari, inspectors need to be experts in their areas of specialization possess counseling skills, be flexible and ready to learn and not impose their own understanding in the lesson, and use tools that can explore the necessary information required to improve practices in schools. Despite these qualities, the use of detailed and structured checklist in the observations was criticized. The checklist was claimed to be limited only to classroom activities and not on extra-curriculum activities which are also important for a learner:

The tool used during inspection is detailed, but mainly focuses on activities done inside classrooms. The activities done outside classes are not given much attention and hence are rarely included in inspection reports. (Jitu)

In using the checklist, inspection becomes structured and observes only specific areas that are included in the inspection tool. In line with what Mati said, no inspection leads to less lesson preparations by teachers. To improve quality and enhance commitment, regular inspections are needed using a tool that includes both classroom and extra-curriculum activities.

### ***Reflection***

In this category the need to improve teachers' earnings as means to improve their motivation has been revealed. Different modes of earning, including increasing salaries, paying special allowances and improving the promotion scheme, have been presented. However, to implement these, funding is needed since they depend on the government budget. In school contexts the results have revealed areas that also need to be improved to improve quality in secondary schools. Teachers' housing, offices and other support facilities like cupboards, tables and chairs are required for schools to attract and retain teachers. More importantly, the results have shown the need to improve classroom practices by improving interactions and student support, mastery and fluency in the language of instruction, and regular inspections with improved tools for observation.

Improving all these areas needs a collective commitment and collaboration between different parties or interest groups at different levels. At the individual level, teachers are required to improve their classroom practices by integrating different methods that are suitable in teaching large classes found in their schools and lessons and find means of making their work simple but still produce the required end results. A committed and creative teacher can manage to teach classes of any size using the resources available in school. Thus,



together with increasing motivation, teachers need to change their mind set and develop creative thinking that will improve their teaching.

At the institution level, schools have to offer an enabling environment for both teachers to teach and students to learn. Together with the availability of staff houses, common and preparation rooms and other support facilities like tables, chairs and cupboards are also required in schools. To restore the deteriorating morale of teachers, regular supervision is needed not only from school inspectors. Supervision by the head of school, heads of departments, academic teachers and other experienced teachers can serve the purpose of mentoring and induction to new teachers.

At community and national level, increased commitment, participation and support in terms of funding are required to improve quality. Revisiting plans and priorities is needed to meet the challenges that require funding and policy directives. To improve teacher motivation, the increase in building of school structures needs a clear policy and plans from the government. It needs increased budget allocation and prioritizing to be able to meet what is most required. Funding and facilities are required to enable school inspectors to perform their roles. With the increasing number of schools, the number of inspectors and facilities like transport as well as funding also need to increase.

### **5.2.2 Quality improvement as empowerment of individuals**

Improving the systems cannot alone attain improved quality of education in schools. Empowered teachers in different areas of specialization are also needed. As presented in 5.1.4, teachers stated the lack knowledge and skills in teaching and lack innovative skills to improvise teaching materials. From these challenges teachers conceived quality improvement as empowering them with knowledge and skills to become self-confident, competent, and self-aware in their work. Evidence was given in areas where teachers need empowerment. These are found in the two broad sub-categories of improving teacher preparation and the development of knowledge and skills to improvise teaching materials. Teacher preparation includes initial teacher preparation and in-service or professional development of teachers, while development of teaching and learning materials includes both those supplied nationally and those developed locally.

#### ***Improving teacher preparation***

It has been discussed in previous chapters that teachers are pivotal in promoting the quality of education in schools. Improving quality in their preparation is therefore important in improving the quality of education. This has become evident in this study where teachers suggested improvements in both initial and

in-service teacher education. Initial teacher education is the pre-service teacher education where individuals are trained to become teachers, while in-service or professional development is the training of teachers already in the profession.

The demand for improving *initial teacher education* was noted from the criticism that training institutions are ineffective as they prepare individuals who are ill-prepared to meet the challenges in the profession. In their responses, teachers argued that graduates coming from different teacher training institutions are still found to lack teaching skills. The skills lacking among pre-service teachers were reported to include both content and pedagogical knowledge:

In schools there are teachers who have received partial training (four weeks) in teacher training colleges. These are found to lack knowledge and skills for teaching as they fail to teach some topics. These teachers lack knowledge in the subject contents as well as skills for teaching. (Moni)

Although Moni was referring to licensed teachers, the lack of knowledge and skills is also a problem for teachers from other modes of training. This argument is supported by Rosa, who reported not teaching some of the topics in her subject area, as the contents were not covered during initial teacher education:

There are some topics in mathematics which are difficult for me to teach. Topics like probability and geometry are difficult to teach, these were also not covered in teacher training college. I just use knowledge I acquired in secondary school. Sometimes I cannot remember as it is a long time since I learnt. (Rosa)

Similarly to Rosa, another teacher showed doubts about the programs for teacher preparation. In his response, Jani argued that initial teacher education programs need revision to improve teacher quality. The teacher argued that newly employed teachers are found to miss some important teaching qualities and hence a critical examination of the training program is needed:

In order to improve the quality of secondary school education, there is a need to improve the quality of initial teacher education. Teachers coming into our schools are found to have inadequate skills for teaching and they fail to meet the needs of the students. Perhaps there is something wrong in their training. The programs for initial teacher education need to be critically examined to produce teachers with competencies in teaching. (Jani)

Jani seemed dissatisfied with initial teacher education for not preparing competent teachers. His argument supports findings from earlier studies that, teacher education institutions are producing inadequate or ill-prepared teachers who cannot manage to meet the challenges of the teaching profession

(Wedgwood, 2006; Komba and Nkumbi, 2008; Hakielimu, 2007). However, initiatives to improve initial teacher preparation are included in the Teacher Education Master Plan (TEMP) (URT, 2001). In TEMP improving the quality of initial teacher preparation is prioritized, although the effectiveness is low.

To improve teacher quality, it is not possible for the government to take the existing teaching force into colleges and universities and retrain them. This can be expensive and time-consuming, but also newly hired teachers are inadequately qualified. Teachers argued that, one way to improve the quality of existing staff is through *professional development* in the form of seminars, workshops and subject panels:

The issue of in-service training is almost a forgotten agenda: no more courses, no more seminars and no more subject panels. How do we improve our teaching? I believe that to improve my competence in teaching I need in-service courses that will empower me with new knowledge and skills in teaching. It is important also to acquire new knowledge in teaching; hence in-service programs are useful for teachers in schools in order to improve their teaching. (Doti)

In-service programs are considered promising and important in improving teacher quality as they take a short time, or can be administered by schools. Despite the importance of the professional development programs they were claimed to be not well-structured. One teacher reported that the programs are inadequate, ad-hoc and not for all teachers:

I believe we differ much in teaching so it is important to meet other teachers in subject panels, workshops and seminars and share experience in the subject areas especially on difficult topics. But where are the chances? They are few, ad-hoc, and sometimes not at all. And if they are provided, not all teachers can attend. (Anza).

The concluding sentence of Anza underlines the inadequacy of the in-service training for teachers. Thus, the expansion of schools in terms of buildings and enrolments is meaningless if the quality of teachers is not improved. Teachers' refresher courses need to be offered from time to time to improve their quality and the quality of teaching. Programs like weekend seminars are important in order not to interfere with the school timetable on weekdays.

### ***Developing knowledge and skills for improvising teaching materials***

Improved teacher quality is meaningless if teaching and learning materials are lacking in schools. In other words, improving the quality of teaching requires improved knowledge and skills for developing teaching and learning materials.

Teachers' skills in developing teaching materials was reported another area that requires improvement. Teachers argued that schools not only lack teaching materials because they lack the skills to devise their own materials, but also because of the lack of funding for schools to buy teaching and learning materials and therefore depend on supplies from the government.

*Supplied materials* are those purchased or donated from the government and other agencies and which depend heavily on the economy and the budget allocation to schools. Teachers admitted to lack skills to develop their own teaching materials and claimed that the materials sold are expensive and schools cannot afford them, hence donations from the government and agencies were important.

The materials in question were from science subjects and mainly imported from abroad. These materials heavily depend on government supply as schools cannot manage the costs:

The quality of science teaching in secondary school is falling because the government supply of teaching and learning materials in schools has decreased if not stopped. In teaching science, equipment is necessary because no real scientific knowledge can be taught without it, the equipment requires money and some of it has to be imported from abroad. With more science equipment and other teaching and learning materials, we can enable the students to learn science better. (Bena)

The statement shows that low government funding to schools has led to a severe lack of science teaching materials. Besides science subjects, materials in technical and vocational subjects are also expensive and schools cannot manage the costs. This area therefore needs attention from both government and other partners supporting secondary education in Tanzania.

With regard to *lack of skills to improvise* teaching materials, teachers admitted the availability of local teaching materials in their school environment but the knowledge and skills to make them was lacking. They claimed to need seminars that could empower them with the skills to make their own materials:

I know there are a lot of materials around the schools but we can't use them as we lack the skills for improvisation. In-service seminars on the development of teaching and learning materials can help us with these skills and equip schools with teaching materials. (Funta)

From the results it was noted that teachers not only lack knowledge and skills to improvise but also lack creativity in using the local environment in their

teaching. This was noted from the responses, as not all materials need skills to develop, others can just be picked up and used in lessons. Subjects like Geography and Biology have a lot of materials that can be chosen and used, but teachers also complained of a lack of teaching materials. Possibly a dependency on supplies comes from the government has made them lack creativity. Thus, this is an area that should be included in the few in-service seminars that are currently offered.

### ***Reflection***

In this section I have presented two broad areas where teachers need empowerment in order to improve the quality of education in secondary schools. The majority of the responses revealed that teacher quality in both initial and in-service preparation need improvement. Evidences of lack of knowledge and skills in teaching from both pre-service and in-service teachers have been exposed. The development of teaching and learning materials is also considered an area for improvement. Teachers talked of the need to improve their skills in developing their own materials and also an increase in government support in terms of materials that are not found in their workplaces. The interpretations of these results are found on two levels: the competence level and material level.

From the competence level, the responses have shown that teachers lack the knowledge and skills to perform their teaching. The demand for improved initial teacher programs and introduction of in-service programs is an indication of this. In this area, the results have shown that improving knowledge and skills for serving teachers was the desire, and teachers expressed the need for in-service programs to upgrade their knowledge and also skills in teaching and developing teaching and learning materials.

In regards to teaching and learning material, some of the teachers' responses revealed the need for teaching materials from the government, especially those deemed too expensive to buy by schools. The provision of materials that are lacking is predicted to empower teachers with tools that they can confidently use in teaching. It is therefore important to ensure plans and priorities are set to integrate these requirements in the training of teachers. Initial teacher education and seminars have to offer both knowledge and skills for materials development.

## **6 Concluding discussion**

The general aim of conducting this study was to explore teachers' conceptions about understanding and improving the quality of secondary school education in Tanzania. In the investigation, I wished to encourage teachers to describe their knowledge and give suggestions for improvement of the quality of secondary school education. The literature (Harvey and Green, 1993; Lomas, 2002; Parri, 2006) have shown that the notions quality, quality of education and quality of secondary school education can be defined from different perspectives.

Similarly, the data in chapter five has revealed different conceptions in the way quality is understood and can be improved. In the proceeding of this chapter the results are discussed in terms of material and non-material perspectives. The material perspective involves different structures, furniture and other physical materials that need finance. In other words, quality can be understood from an economic stand point. Conversely, the non-material perspective includes the cognitive development of individuals. This includes the knowledge, skills and capabilities possessed or acquired by individuals and it means that the excellence of education depends on the cognitive level that school graduates possess. The discussion in this chapter therefore underlines these two perspectives. At the end, a discussion of the methodology used and the implications of the study with suggestions for further research are presented.

### **6.1 Conceptions about quality of secondary school education**

Secondary school education is as important sub-sector of the entire education system of Tanzania. On the one hand a middle level labor force is available from this level of education and on other hand higher learning institutions receive students who complete this education (Hakielimu, 2007; Wedgwood, 2007; Koda, 2007; URT, 1995). Secondary school education therefore, is an important link in Tanzanian education and its quality needs to be reviewed and improved from time to time. As discussed in chapter three, the notion quality is described as complex, multi-faceted, illusive and contextual when used in education (Harvey and Green, 1993; Mosha, 2000; Sallis, 2002; Shahzad, 2007). This has also been the case in this study, as the results have revealed varying conceptions towards understanding the notion quality as used in secondary school education. Teachers conceived the quality of secondary school education as meeting the aims of education, meeting individual achievements and capabilities, possessing competencies, and meeting the challenges in schools and education in general. These conceptions represent different ways in which teachers understand the notion of quality. The analysis has shown that professional knowledge and work

experience had great influence on the teachers' explanations and conceptions. It means the conceptions given, related to their professional experience and content knowledge. In this case, teachers easily explained the phenomena related to their subject areas of specialization. This study therefore, is in line with Gholami (2009) who argued that subject matter knowledge is useful in peoples' argument. The knowledge possessed by the teachers had power in their conceptions. Similarly, teachers with a longer period in the profession and who had taught in more than one school had richer knowledge and hence their conceptions contained more experience than new teachers. This means experience is also a strong influence in teachers' conceptions. Moreover, the conceptions were contextual, as differences between rural and urban background were noted.

### **6.1.1 Quality as meeting aims**

Countries mostly in the developing world to date have increased their concerns about improving quality in their education systems (Gropello, 2006). The concerns are about the growing imbalance between the expanded enrollment and the few resources available which are further affecting school and students' achievements (Shahzad, 2007; Bedi and Sharma, 2006). In some cases curricula have been reviewed and aims have been restated with the purpose of improving quality (Bedi and Sharma, 2006). In this case quality is described in terms of the ability to achieve the targeted purposes. As discussed in the literature review, the requirements or purposes of education are described in terms of aims or expected end results (Lomas, 2002; Parri, 2006). They are end results because society as a third actor can easily use them to measure the quality of education (Saddon, 2000). In education the end results are the gains in knowledge, skills and attitude that individuals have to possess (Gibbs, 2010). These are achieved through a balanced curriculum aimed at acquisition of knowledge and skills for self-reliance. The data in this study supports a study conducted by Höjlund, Mtana and Mhando (2001) which revealed that 'teaching that allows the integration of theory and practice is likely to lead to quality of learning'. At the other end, providing work and life skills was assumed to have the essentials of quality. In the teachers' arguments, science, technical and vocational subjects were given higher potential to meet the societal requirements. Teachers in these subjects argued that the curriculum is practical as it gives opportunities to do experiments as ways to integrate theory and practice. In their arguments they used knowledge from their subject areas. This brings the sense that content knowledge has priority in individuals' understanding of related phenomena (see also Gholami, 2009). Taking the quality of secondary school education as meeting the curriculum in practice relied on teachers' content knowledge in their subject areas. On the other hand, in non-science subjects, the curriculum was

conceived as more theoretical in the sense that students do not have the opportunities to practice the knowledge and skills they have acquired in lessons. In regard to the fitness for purpose perspective, the requirements of society in such curriculum may not be met.

In addition, teachers' conceptions were influenced by their experiences in the profession. From the discussion above, this was revealed in teachers' responses, where they talked of the number of years of their teaching experience. Thus, experience is also considered a powerful factor in conceiving a phenomenon (Marton and Booth, 1997; Åkerlind, 2007; Stamouli and Huggard, 2007). Teachers with long experience argued that knowledge and skills for self-reliance are important in improving the quality of education. These arguments related to previously practiced curriculum. In the book by Nyerere (1968a) *Freedom and Socialism* the issue of education for self-reliance is discussed at length. Emphasis in this books has being on integrating theory and practice in teaching. In respect to self-reliance, experienced teachers referred to the integration of education and work, which was emphasized in this book as well as in the policy of education for self-reliance (see Ishumi and Maliyamkono, 2001). Nevertheless, recently, schools have abandoned teaching education for self-reliance and hence less integration of theory and practice is in teaching.

Generally, the results have shown that in conceiving quality as meeting the requirements, variations are seen in different subject areas and experiences in teaching. This is an indication that the requirements are dynamic and not static, they change with time and society. In this dynamism each society defines quality depending on its requirements and then sets out the education to achieve it. Meeting the requirements is a prerequisite for quality of education. This means that the quality of the education is described in terms of how the aims are best achieved in the respective societies. And in this case, subject content knowledge and experience are found to act as the source for understanding the notion quality from the non-material perspective.

### **6.1.2 Quality as possessing competencies**

As part of the strategy to improve quality in secondary education system in Tanzania, there has been a shift in the present curriculum towards a competence-based curriculum (World Bank, 2005). This originates from the fact that a number of students have been completing schools with low competences (Hakielimu, 2007; Wedgwood, 2007). In this sense it is important that conceptions about quality be viewed in terms of the possession of competences. In this study therefore, the results show that quality has been described from the possession of competences, where issues like identities and command in



language of instructions were amplified. The results revealed that people identify easily in areas they feel themselves competent and confident in this case teachers' subject areas (see also Gholami, 2009). A high command of the subject content or practical knowledge empowers teachers to identify themselves in the subject areas or in the profession. This means that teachers identified themselves from their subject areas they teach. Training of teachers therefore, has to emphasize more on command to both subject content and pedagogical knowledge. Conversely, the value given to teaching is affected negatively by the low competence shown by school graduates. The results show that teachers claimed to be devalued because of the low performances and lack of competence possessed by their students. Comparative studies conducted in Tanzania have also revealed similar results (Komba and Nkumbi, 2008; Makombe et al, 2010). Similar to Hakielimu (2007) teachers in this study reported that parents and other interest groups claim teachers being not effectively teaching as a result of the poor performance of students (see also Sumra and Rajani, 2006). In this case, teachers' identities depend on excellence in both subject content and pedagogical content knowledge. The low value given to the teaching profession is an indication that standards are not being achieved. To enhance and restore the value for the teaching profession in our societies, improvement in teachers' content knowledge, and their instructional skills and strategies is still important.

Teachers also described quality to depend on the command of the language of instructions. They argued that the language of instruction is an indicator to assess quality (Qorro, 2006). It is important to note that the quality of education is nurtured by classroom interactions and thus command in the language of instruction is an important element of quality (Senkoro, 2004; Utne and Holmarsdottir, 2004). This was evident from science teachers who reported the failure of interaction and failure to participate in different forums because they lack fluency in English. In addition, a majority of the diploma teachers claimed to mix Kiswahili and English in teaching because of their poor command of English language. Can the ability to speak English be taken as a standard for improving the quality of education in Tanzania? This study did not provide answer to this question. The ongoing dialogue on language of instruction might produce a convincing answer.

Generally, personal identities and command in the language of instruction have been identified as elements of quality of education. According to Kagia (2005), the professional identities of teachers are constructed from their disciplines of specialization, Therefore quality of teaching and learning cannot be separated from the language of instruction (see also Qorro, 2006; Senkoro, 2004; Utne and Holmarsdottir, 2004). As a result, the quality of secondary school education

depends on mastery in the language of instruction among teachers and students. My argument is that, there should be only one language of instruction used at all levels of education. The current policy of using Kiswahili in primary schools affects students when joining secondary schools as the language changes to English. As a result, teachers spend almost the first six weeks of secondary education teaching an English orientation course to orient students to the new language of instruction. The orientation course delays and affects the coverage of the syllabuses. If it is agreed on one language from primary to higher education, the unnecessary delays happening in the syllabus may be minimized. However, this attempt needs time, resources and finance as translation of the available reading materials into the agreed language is needed, and thus there is an implication also for the budget allocated for education. The lessons learned from the results and also from other studies is that English as the language of instruction is an inhibiting factor on quality, and thus in the strategies to improve quality, the upgrading of teachers' skills in the language is important in Tanzania (Senkoro, 2004; Qorro, 2006; Utne and Holmarsdottir, 2004).

### **6.1.3 Quality as meeting individual achievements and capabilities**

The discussion in the literature review revealed that achievements in examinations and capabilities are considered standards in assessing the quality of education and more specifically secondary school education (Malekela, 2000; Hakielimu, 2007; Wedgwood, 2007). In relation to this discussion, teachers related the quality of secondary school education to the achievements of students in final examinations or the capabilities they can demonstrate to society (Hakielimu, 2007). Reporting on final examination results, the teachers argued that the quality of secondary school education is deteriorating (see also in Makombe et al, 2010). The statistics from the Ministry of Education and Vocational Training have shown that results in the past ten years for lower secondary schools are poor; leading to the conclusion that quality is also deteriorating (MoEVT, 2010). Although statistics for individual subjects are missing, evidence was obtained from teachers that performance is worse in subjects such as mathematics, physics, chemistry, and English. The poor performance is associated with a shortage of skilled teachers in these subjects.

Using examinations to describe quality can sometimes mislead, as the validity of examinations are sometimes criticized. The critics were referring to questions which mainly test low level knowledge (Hakielimu, 2007). Examinations in secondary schools contain sections of multiple choice answers, matching items and short answers which are sometimes subject to cheating and guess work. The critics make examinations the necessary but not a sufficient measure of quality.

It is convincing if quality is assessed from capabilities. What are students able to do? What can graduated demonstrate as a result of the education acquired in school? But what is the reality in secondary schools? Teachers argued that students complete primary school and are selected to join secondary without acquiring basic skills (see also Hakielimu, 2007). When entering secondary school with low capabilities, students encounter difficulties on being taught new knowledge in a new language. This is a great drawback to secondary school education in Tanzania (Qorro, 2006). From logic, if students enter secondary education with low grades, it is like that they finish the cycle with lower grades. This vicious cycle therefore, continues to other levels of education including higher education. It is now important that examination system and formats be revisited to be able to screen and allow people with necessary qualities to enter the next cycle. In short, examination results should continue being measures of quality but the students' capabilities could be the more convincing to describe the quality of education.

#### **6.1.4 Quality as meeting the education challenges in education**

Good quality of education depends on a number of factors. For example, it depends on the availability and effective use of teaching methodologies designed to encourage independent learning administered by capable and motivated teachers (Shahzad, 2007). It also depends on the use of effective learning materials, a suitable and well maintained learning environment and a valid and reliable examination system (Wedgwood, 2007; Hakielimu, 2007). The situation in Tanzania and similar countries in the sub-Saharan region is lacking in most of these components. Researchers in Sub-Saharan Africa have revealed a number of challenges facing the provision and delivery of secondary school education (Word Bank, 2005; Dembélé and Oviawe, 2007; Sifuna, 2007; Chireshe and Shumba, 2011, Ngimbudzi, 2009). Similarly, in this study quality was conceived being challenged by overcrowded classes, lack of teaching and learning materials, and a poor teaching force. Teachers reported that these challenges have great impact on the quality of education in secondary schools. In their responses, they related these challenges to poor quality of education as they inhibit the smooth delivery. In relation to 'practical knowledge', the main references in teachers' arguments were from their subject areas of specialization. The most reported affected subjects were sciences and mathematics which are inadequately staffed.

Referring to times before and after the introduction of the Secondary Education Development Program (SEDP), the influence of teaching experiences was noted. Teachers argued that since the introduction of SEDP there has been overcrowding in classes. The findings were found to be similar to what

Makombe et al (2010) found in their study, where teachers reported that access has increased against the available facilities. In this case, teachers with longer experience had richer conceptions than new teachers. Furthermore, rural schools face more challenges in terms of quality than do urban schools (Wedgwood, 2007). This situation makes the quality of secondary school education a contextual phenomenon. In this case, quality becomes unstable, dynamic, and relative as it changes in meaning from one context to another (Gibbs, 2010; Sallis, 2002). For example, in some boarding schools the lack of preparation rooms, laboratories, and teachers' offices is not such a big challenge compared to community day schools. The proportion of staff in boarding schools is relatively better than in community schools. As has been reported in the literature, teachers are reluctant to teach in rural schools because of the many challenges they face (Ngimbudzi, 2009). This makes the lack of teachers a bigger problem in rural schools than in urban areas. Conversely, because of the high dropout rate in rural schools, overcrowded classes are not a frequently reported challenge. Teachers reported that in rural schools overcrowding is experienced more during the first year (form one) because enrolment is compulsory. The number tends to lower year after year because of dropout due to various reasons including pregnancy to girl students and lack of school fees to students from poor families.

In line with other studies, (Makombe et al, 2010; Hakielimu, 2007; Komba and Nkumbi, 2008), the lack of instructional materials was reported to be a major challenge across schools. Teachers reported that they depend heavily on the materials from the government which are in short supply. Because of poverty the country cannot manage to supply the required amount of materials (Benell and Mukyanuzi, 2005). The dependency therefore, has led to a severe lack of these materials in schools. Similarly, the results revealed the lack of trained teachers in schools as a factor that hinders attaining quality.

From these challenges, quality can best be described from the economic point of view. This means the ability of the country to support the investment in education is required. The expansion of the system requires being in line with the supply of other teaching and learning materials and training of teachers, but the competence of the existing teaching corps must also be improved. However, the support of schools needs plans and funding from the central government. A discussion in relation to improving support for education is provided in the next section.

Generally section 6.1 has discussed on areas that can be used to describe the notion quality of secondary school education. The areas cited include both the material and the non-material perspective. Attainment of the aims, possession of

competences and achievements among individuals can be clustered into the non-material perspective. These reflect more on the knowledge and skills. On the material perspective, the discussion has shown that to attain the quality of education in secondary schools, increasing budget allocation is a prerequisite.

## **6.2 Teacher's conceptions about quality improvement**

Teachers' conceptions in the second research question described two areas of improvement. Firstly, teachers conceived quality improvement as enhancing the delivery system of secondary school education. The word system was used to mean the structures and organization, contexts and roles played by different actors in ensuring the quality of education. Secondly, teachers conceived improving the quality of individuals involved in the provision of secondary school education. This section only focused on improving the quality of teaching staff.

### **6.2.1 Quality improvement as enhancing the systems**

Based on the discussions in sections 3.2 and 3.3, quality enhancement is related to improving systems guiding or supporting the provision of education (Lomas, 2002; Parri, 2006). The systems are the structure and organization in the delivery of secondary school education. In this study, the systems include motivation systems encompassing salary, allowances and promotion system, school context and classroom practices (see also Komba and Nkumbi, 2008). School inspection as a quality assurance system is also discussed as an area that needs improvement (see also NAO report, 2008). Teachers felt these areas are being neglected and thus affecting negatively the quality of education in secondary schools.

Among the inhibiting factors, teachers' salaries are a major concern. A comparative study conducted in Punjab revealed that teachers in the public system claimed to be poorly paid, and enormous administrative problems cause some to wait for up to three months or more to get paid, especially in first teaching posts (Shahzad, 2007). Similar studies also conducted in Tanzania produced similar results (see Komba and Nkumbi, 2008; Benell and Mukyanuzi, 2005). The studies show that some teachers cannot support themselves on their current salaries, and hence supplement their income through extra activities outside of the school (Benell and Mukyanuzi, 2005). The salaries paid were claimed to be not proportional to the work teachers do in schools (Davidson, 2006). Similarly teachers in this study argued that to serve schools and students for more hours compared to other staff in schools. In this argument teachers were referring to both classroom and out of class activities, namely 'extra curriculum activities' which are usually done after lessons. These duties need

teachers' attention and for boarding schools the duties extend to parental care as teachers are also responsible for the wellbeing of the students (Ngimbudzi, 2009). While carrying out all these duties, teachers still are paid low salaries, with which they cannot manage to support their families. This has affected their efficiency and effectiveness in work as they spend few hours in schools and more in other income generating activities including tuition classes and sometimes selling worksheets and handouts to supplement the low pay they receive from salaries (Davidson, 2006; Benell and Mukyanuzi, 2005). Although tuition classes and selling handouts are means to obtain extra money but the practices limit the access to students from poor families, as they cannot manage the costs (Wedgwood, 2007).

To change this situation in schools and restore the motivation of teachers, an improvement in earnings is required. Improvement of teachers' salaries is necessary in order to retain competent teachers and to remove their need to supplement their income through extra activities (see also Davidson, 2006). It is important to note that only motivated teachers can make teaching and learning processes effective and meaningful. Improving their salary package can motivate them and thus increase their commitment in work. Although it may have budgetary implications proper salary packages can motivate teachers and then improve the quality of education in Tanzania (Davidson, 2006; Komba and Nkumbi, 2008). To improve their packages, teachers commended the introduction of special allowances and teaching allowances. If paid, the allowances can increase teachers' earning and morale in work. Teaching allowances can compensate for the unpaid activities and hours of teachers (Benell, 2004) and make them stay and teach in their schools. The special allowances are a compensation for the costs incurred by teachers in rural schools in the search for social services.

Teachers further complained about the promotion scheme employed in promoting teachers in the profession. These claims were given by the experienced teachers as expressed their frustration with the lack of clear policy on teachers' promotion. The promotion scheme was reported limiting as some experienced teachers cannot get more promotion as they have reached their maximum limit or bar. The word bar means a limiting scale that no more promotion is given unless an individual acquires a higher qualification. This was reported to affect more diploma teachers who cannot upgrade and acquire degrees. None of the teachers was sure of the number of years one has to serve before the next promotion. An estimation of three to four years was given although, existed teachers who had served more than five years without their promotions. Despite that the stratification in promotion might act as a catalyst

for young teachers to upgrade and acquire degrees, nevertheless the idea is conceived to reduce the motivation of experienced teachers in work.

While teachers are complaining about the low payment of salaries and poor promotion prospects, the working and living conditions in schools are also demotivating (Mwaimu, 2001; Benell and Mukyanuzi, 2005). Proper physical facilities are necessary for creating conducive teaching and learning environments (Davidson, 2006). The study shows that some important physical facilities were missing especially in community schools. This may be due to lack of financial resources to construct them, and poor prioritizing among communities in the establishment of these schools (Makombe et al, 2010). Schools lack essential facilities including housing, preparation rooms or offices, and furniture for teachers. In other words, teachers conceived quality enhancement as improving the school contexts. They reported that the environments in schools are unfriendly for working and living especially for new teachers who have difficulty in adjusting to the rural areas (Makombe et al, 2010). Evidence was given for rural schools failing to attract and retain new teachers posted because of the lack of modern houses.

Equally important, improved classroom practices are expected to result from motivated teachers (Mwaimu, 2001). The results show that the situation is poor as classroom practices were reported to be badly managed because of the many challenges. The practices include classroom activities, interactions between teacher and students, and among students, aimed at improving students' achievements. Teachers argued that classroom practices are limited because of the deficiency in the language of instruction, large classes, and lack of teaching skills and lack of knowledge. They claimed to fail to use interactive methods because of the large classes (Komba and Nkumbi, 2008; Benell and Mukyanuzi, 2005). To be able to improve interactions in classes, language proficiency also need to improve (see Davidson, 2006; Qorro, 2006; Senkoro, 2004). As it has been discussed teachers fail to interact because of poor command of the language of instruction. This is a serious issue that needs improvement as classroom practices are at the heart of the whole learning in schools. Without improving classroom practices the government initiatives for increasing access and promoting the relevancy of education may not yield the expected results.

However, improving classroom practices alone is not a sufficient condition to improve the quality of teaching and learning but improving other parallel systems is needed. The parallel systems to teaching and learning practices in the context of this study are inspections and examinations. Both systems were argued to need improvement. According to NAO (2008) the observation

checklist for has limitations in observing extra-curriculum which also contribute to quality. In their inspections, inspectors were claimed to use a structured and rigid checklist that does not allow innovations (ibid). At the same time, inspections were reported as being irregular and sometimes ad-hoc. Examinations on other hand are criticized in terms of their validity to measure the quality of education (Hakielimu, 2007). Multiple choices, matching items and short answer questions measure only a low level of learning, mainly remembering or reproducing facts. These kinds of assessment are opposing the struggle to shift towards teaching a competence-based curriculum recently introduced in Tanzania. In this case the system of examining students' achievements is also subject to improvement to be able to measure other qualities other than cognitive.

In a general and wider view, enhancing quality or improving systems can be viewed from an economic point of view. In other words, improving salaries, paying allowances, building houses and offices for teachers and building more classes to reduce overcrowding all need a sound budget. However, this is discussed more in the next section.

Enhancing quality can further be looked at from the plans and priorities set out nationally for education. As discussed in previous chapters, in 2004 Tanzania launched the secondary education development program (SEDP) with the ambition to improve the systems in secondary schools. The strategies in the program encompass expanding access and recruitment of teachers as well as increasing the number of classrooms and other school structures. In this program, schools and classrooms have increased to cater for a growing demand for secondary school education (MoEVT, 2010). Most newly constructed schools are in rural areas, where housing could help in attracting and retaining teachers, but the idea is not given high priority. In most of the new schools the emphasis in construction is on classrooms rather than on other structures, and thus schools lack staff housing and offices. Schools also lack electricity and clean water, as these were also not prioritized in the first phase of the program. This situation has resulted in difficulty to attract and retain new young and ambitious teachers to live and work in rural schools (see also Makombe et al, 2010).

In summary, improving the quality of education in secondary schools in Tanzania is a joint effort, as parallel systems have to be improved simultaneously. Quality cannot be achieved when schools increase access but at the same time teachers are de-motivated and poorly trained, the schools have no facilities for teachers and they lack teaching and learning materials, Enhancing



quality, therefore, requires the total commitment of interest groups responsible for the provision and support for secondary school education.

### **6.2.2 Quality improvement as empowering individuals**

In the literature review, the word empowerment related to adding knowledge and skills to an individual to become competent and confident in performance (Lomas, 2002; Parri, 2006). Empowering teachers was conceived to result from improved teacher preparation and development that encompasses all types of facilitated learning opportunities, ranging from diplomas to degrees for pre-service teachers (Orleans, 2007; Komba and Nkumbi, 2008), and from formal seminars, workshops, subject panels, and conferences to informal learning opportunities like reading publications, modules and watching video tapes for in-service teachers (Buczynski and Hansen, 2010). Teachers with satisfactory qualifications are assumed to be competent in both subject matter knowledge and pedagogical skills, enabling them to effectively produce high student achievement. Experienced teachers can also adequately handle the learning challenges of the students as they are familiar with classroom practices (Orleans, 2007).

The data show that in Tanzania, teacher preparation is poor as graduates from college and universities lack the necessary knowledge and skills to teach (see also Hakielimu, 2007; Komba and Nkumbi, 2008). Teachers are also ill-prepared as they lack necessary and innovative skills in teaching (Wedgwood, 2007). Their claims of skipping some topics are evidence of lack of knowledge and teaching skills. Teachers also reported lacking the skills to develop their own teaching and learning materials an indication that they lack practical skills. The need for teacher professional development is an indication that they were inadequately prepared in colleges and universities and thus, they have the ambition to improve practices (Komba and Nkumbi, 2008; Benell and Mukyanuzi, 2005). In-service courses are assumed to be important to equip teachers with the knowledge, methodology and skills to devise and develop their own instructional materials (Buczynski and Hansen, 2010). The results of this study indicate that there is a vicious circle of poor preparation of teachers resulting in the poor preparation of students (see also Wedgwood, 2005). This means that what comes out from schools is similar to what goes in classrooms (Orleans, 2007), thus students receive little cognitive and social development while in schools and colleges.

In summary, it is important to note that all teachers are not born-teachers; improving teacher preparation therefore, is the most important influence in promoting student achievement (Orleans, 2007; Buczynski and Hansen, 2010).

Teacher preparation both pre-service and in-service is important in promoting the quality of education in secondary schools in Tanzania.

### ***Pre-service teacher preparation***

Because of rising demand and enrolment in secondary schools in Tanzania, the number of teachers also needed to increase. To match the growth in enrolment, different types of teacher preparation have been put into practice (Babyegeya, 2006) with the aim of expanding the training of teachers (Komba and Nkumbi, 2008). The data in chapter four showed pre-service teacher education is provided at different levels of training ranging from one month 'temporary licensed' training, to two year diploma and three year degree programs. Because of the low capacity in teacher training colleges to accommodate increased enrolment, few cases of students living off campus also exist. From these different types of training, the results shows that teacher quality comparatively varies relating to the way were prepared. The scope and duration of training may very much correlated to the output in terms of knowledge and skills acquired. Literature has shown that because of low performance in secondary schools, only few individuals can qualify to join higher education as a result the low achievement has led colleges and universities to lower the entry qualifications in order to enroll enough students (Wedgwood, 2007). Lowering the entry requirement not only increased the number of students but the number of unqualified teachers. Thus, the number of poorly trained teachers in schools is not a surprise.

In Tanzania, this vicious circle has a long history. It starts from the late 1970s, when Universal Primary Education (UPE) was introduced (Höjlind, Mtana and Mhando, 2001). As a result of UPE, enrollment in primary schools grew, demanding more teachers. Like what is done to the temporary licensed teachers, people who had completed primary and secondary schools were shortly drilled in the profession and then employed to teach in primary schools (Wedgwood, 2005). The aim of the short training was to increase the number of teachers needed in schools. It is now anticipated that some of the outputs from this program are now in teacher training colleges and universities and the cycle is being repeated. What can now be done? If the country has to achieve the vision of 2025, the MDGs and EFA goals, then deliberate decisions have to be made to ensure in-service programs for teachers (Komba and Nkumbi, 2008). The existing staffs are not only inadequately trained in subject contents, but also in pedagogy, including the language of instruction (Qorro, 2006). The important lesson from this study is that the expansion of the system requires the training of more teachers, but the competence of the existing teaching corps must be improved. This includes upgrading skills in areas of short supply and more

important improvement in teachers' content knowledge, and their instructional skills and strategies must be enhanced.

### ***In-service teacher preparation***

The conclusion in the previous section shows the need for in-service programs for teachers. In-service programs are needed for teachers' academic advancement and development in their teaching. Teachers reported that professional development can empower them to become professional, increase expertise and improve standards of teaching, thus gaining confidence and self-esteem. The conceptions were assumed to combine both academic and professional development. In teachers responses, several terms were used to refer to both academic advancement and professional development such as 'getting more knowledge and skills, gaining confidence and competences, upgrading or improving professionally, academically and technologically. In other words, teachers conceived professional development as a means to achieve high standards of teaching, keep teachers updated, increase expertise and enable teachers to meet the challenges in schools and the profession (see also Buczynski and Hansen, 2010). Teachers seemed to be positive towards professional development and hence in-service training in both subject content and pedagogical skills in different topics is needed in promoting their competences (see also Komba and Nkumbi, 2008).

Results from the first research question have shown that professional identities of teachers are constructed from competencies in teachers' disciplines of specialization (see also Kagia, 2005). This means professional identities are characteristic of individuals in the profession (Gholami, 2009). Such identities include subject content knowledge, competence and expertise in teaching. From these results, teachers' demands for professional development were found to lie in both the subject content and pedagogical knowledge and skills in teaching. In this case professional identities were taken to encompass both the 'what and how' to teach.

From a quantitative view, subject content knowledge can be defined from the number of courses or topics covered, while a qualitative view is taken to emphasize knowledge and understanding of facts, concepts and principles in relation to their organization (Banyegeya, 2006). In a similar way, teachers explained that professional development programs can be useful in the acquisition of a thorough understanding of different facts, concepts and principles that were claimed to be difficult in teaching their subject areas. Thus, academic identity was assumed to result from a thorough possession of knowledge and skills in the subject content.

Equally important, pedagogical knowledge was expressed from expertise in teaching, where teachers claimed to have confidence in certain topics or subjects. Professional development therefore was conceived as a means to increase pedagogical knowledge and skills among teachers (Komba and Nkumbi, 2008). According to Even (1993), pedagogical knowledge and skills include ways of representing and formulating the subject matter to make it comprehensible. In this case, command in the language of instruction is important in teaching. Teachers described pedagogical knowledge as the 'knowledge of how to teach' (see also Krzywacki, 2009). Hence, improving this area is important in promoting the quality of secondary school education in Tanzania (Komba and Nkumbi, 2008).

The results have further shown that competent teachers alone cannot improve the quality of education, but can only advance students' achievements. With the growth in student enrollment, variation in students' interests and approaches to learning, and the rising demand from society, print and spoken forms of media cannot be sufficient to achieve maximum learning in classrooms (Orleans, 2007) as a variety of teaching materials is needed. A varied range of appropriate instructional materials is required to make teaching and learning more inspiring and encouraging (Wedgwood, 2007). The results show that teachers lack skills to develop their own teaching materials and thus depend solely on the supplies from the government and other agencies. However the analysis has shown that teachers not only lack skills to develop their own materials but also they lack the creativity to identify them, as many can be found in their locality. The dependence from the supplied materials is a syndrome that is growing among teachers in Tanzania and thus change in mindset is required. The demand for in-service programs aiming at empowering teachers with skills to develop own teaching material can serve to improve their creativity and change teachers' mindset towards self-reliance.

In this section professional development as a means to improve teacher quality has been discussed. The remaining challenge is how often are these opportunities available in schools? The results have shown that teacher professional development programs are ad-hoc and for a minority (see also Hakielimu, 2007; Komba and Nkumbi, 2008; Davison, 2006). Some of the teachers claimed not to have attended any in-service courses, meaning that their teaching comes from the knowledge and skills they acquired only during initial teacher education.

Similar to what has been discussed in section 5.2.1, a lack of professional development programs can be looked at from the economic point of view. The

low level of the Tanzanian economy leads to an inability to support in-service programs for teachers. The limited budget allocated for education covers the primary and secondary sub-sectors, teacher training colleges, universities, the inspectorate and other ministerial expenditure, excluding salaries. This is significantly low as compared to the number of sub-sectors to be supported, but it is even worse when the demand is increasing while the percentage allocation for education is decreasing, as summarized in the table below.

**Table 9: Budget allocation for education in Tanzania**

<b>Budget year</b>	<b>Allocated in Millions</b>	<b>% of the total budget</b>
2011/2012	2,283.0	2.8
2010/2011	2,045.9	3.1
2009/2010	1,743.9	3.4

Source: Ministry of Finance (Mkulo's Budget speeches, 2011)

From the table above it can be seen that, although the allocation is increasing the percentage of the total budget is decreasing. This means the allocation per person is decreasing. If the statistics could be provided in terms of sub-sectors, the allocations for secondary education would be even lower.

With this limited budget, what can SEDP do to achieve its goals? Though SEDP recognizes the lack of teaching and learning materials caused by the increase in the number of schools (MoEVT, 2010), capacity building in terms of teaching materials is not prioritized. Thus, the dependence syndrome among teacher will continue if it is not addressed. Then what can be done? Professional development is required to improve the quality of these teaching needs. Taking the idea by Dembélé and Lefoka (2007) of renewing the profession among teachers is almost impossible within a short time. It is impossible to take the entire ill-trained teacher to colleges and universities as it is expensive and can draw them out of classroom. Improved school, clusters and teacher resource centres programs can serve the purpose. Resource centres can be used to run weekend seminars, workshops and subject panels at low cost. According to Hardman et al, (2012) school-based training programs are relatively cheaper as compared to college-based programs. In their schools teachers can meet and share experiences on different subject and pedagogical content knowledge and skills for developing their own instructional materials, thus minimizing the shortage of instructional materials in schools and at the same time improving their quality.

Generally section 6.2 has discussed different strategies that can be used to improve the quality of secondary school education. The methods discussed are clustered in the two perspectives: the material and non-material perspective.

Enhancing the systems is more on the material perspective as the conceptions have shown the need for improving structures, earning and training that require funding. Conversely empowering individuals is on the non-material perspective as conceptions revealed the need for knowledge and skill to improve practice.

### **6.3 Discussion on methodological issues**

My study can in a way be characterized as a case study because it studies conceptions to a selected few number of teachers, and as in qualitative studies it does not provide an insight which can be generalized. Instead it offers deep insights into a selected group of teachers working under the same conditions as secondary school teachers in government schools country wide. Therefore the knowledge generated is relevant for viewing teachers' conceptions beyond the selected group of respondents.

In the study, a sample of 30 secondary school teachers serving in four schools located in different contexts. The schools were purposely selected to include rural and urban contexts and new and experienced teachers. The purpose in selecting the sample was from the assumption that conceptions can be obtained from the experiences held by teachers (Marton and Booth, 1997; Kiley and Mullin, 2005). Thus, the selected schools constituted teachers with different teaching experience, level of education, gender and subject areas. To study conceptions and to ensure triangulation, recorded semi-structured interviews were used being complemented with short hand notes taken to during interviews for capturing both the spoken and un-spoken language. The methods were appropriate because they were flexible tools, enabling multi-sensory channels to be used, including verbal and body language (Denzin and Lincoln, 2000; Cohen, Manion and Morisson, 2007). To obtain in-depth information, conversations mainly in probes were made between the researcher and respondent based on a guiding set of questions and were useful in obtaining meaning to quality of secondary school education.

The interview sessions were divided into three stages: introduction, main interview and reflection. In the introduction stage, the aim was to establish issues related to voluntary participation, confidentiality, and anonymity to the interviewee. This stage was important and was done to build trust between the researcher and the teachers. Places and duration for interviews were also agreed during the introductory remarks. The next stage was the main interview process. In this stage, teachers responded to the questions by giving their experiences and knowledge about the notions in question. Probes were made to obtain the deep-rooted information from the teachers. The last stage was the reflection. This stage aimed at reflecting on the correctness and consistency of the information

collected. This stage helped in correcting misinterpretation or misunderstanding of the conceptions obtained. The duration for the interview sessions ranged from 30 to 60 minutes, which was considered sufficient for phenomenographic interviews (Trigwell, 2000).

Being aware of the critique that phenomenographic studies neglect the context of the participants (Binde, 2010), I tried as much as possible to include teachers' experiences as they reflected differences in school and teacher contexts. Being a teacher, it was easy to capture and understand the language used in the interviews. Teachers were free to use both Kiswahili and English, the languages that are common to me. During data analysis, the interviews were transcribed and analyzed qualitatively in accordance with the phenomenographic approach. Coding process employed helped in obtaining variations in conceptions that constitute into different qualitative categories of descriptions and aspects (Strauss and Corbin, 1990; Petersson, 2005; Åkerlind, 2007). From the results, this study has revealed different ways of understanding and improving the quality of secondary school education. The findings have increased my knowledge of the notion quality as I can develop evidence-based arguments from the data.

#### **6.4 Implications of the study**

The aim of the study was to investigate conceptions among teachers on understanding and improving the quality of secondary school education. The specific intention in this task was to explore and gain insights into a selected group of teachers working under the same conditions as secondary school teachers in Tanzanian government. These intentions were based from the assumption that teachers' experiences, contexts, level of education and subject areas of specialization can influence their conceptions (Marton and Booth, 1997). The questions of what teachers understand and what conceive as possible ways to improve the quality of education in secondary schools are addressed. The results have shown that teachers' conceptions were influenced by circumstances and challenges experienced in schools and in their subjects of specialization. From these influences teachers conceived quality from the ability to meet the aims of education and of the societies. It was further conceived from possession of competences, individual achievements and capabilities and meeting the challenges in teaching and learning and in education in general. In addition, the conceptions revealed that there are circumstances, situations and challenges that need improvement in order to achieve the quality of education and that meeting them needs a number of solutions.

One possible solution is to use the results of this study as a knowledge base to address the challenges. Knowledge from this study, together with commitments in plans and priorities from both government and other interest groups, the challenges can be met. For example, teachers need professional development because they lack essential skills in the profession. The lack of innovative skills to develop their own teaching and learning materials and lack of knowledge and skills to teach the outlined topics in the syllabus is evidence for lack of professional qualities and this needs attention from both planners and teacher educators. Professional development has to be provided not only in teacher training colleges and universities where teacher preparation is on large scale but also in schools. School-based programs are appropriate as they don't draw out teachers from schools rather they allow them to continue with teaching.

Other issues that need attention are overcrowded classes, lack of facilities such as housing, offices and other support materials. These require prioritizing in the existing plans, where both the central and local government can collectively work together to meet these challenges. The results of this study therefore are useful in pre-planning and re-prioritizing the different support systems, including the SEDP. Decentralizing and delegating of responsibilities to local authorities is a way of minimizing these challenges, but one question remains is whether the people at the grassroots know their responsibilities. This means capacity building is also needed to empower the different actors at local levels in planning and prioritizing according to the needs. It is the role of policy makers to ensure awareness among communities on planning and prioritizing so as the constructions includes the other facilities than classrooms and hostels that are given higher rank in the priority list.

Decentralization of the inspectorate department is also needed to place inspectors closer to the schools. Currently, inspectors for secondary schools are clustered in education zones under the central government, while schools are under local authorities. In this case the two systems are under different bodies of accountability. This can make sense if both of the two operate under the same authority. Placing inspectorate under the same authority with schools will increase both their commitment and support.

This study also has implication on improving the quality of secondary school education in Tanzania. In the results, teachers have made different suggestions that can be utilized to improve the quality of education in schools. With regard to teacher motivation, the teachers have suggested the introduction of teaching allowances, special allowances as a means of improving teacher morale at work. Issues related to teacher quality and school contexts are also being addressed and



suggestions for improvements being made. These suggestions may have budget implications so it is important therefore policy makers and planners to integrate into the national plans.

From its theoretical standpoint, the study can raise the interest of other researchers in Tanzania and elsewhere. The adoption of different perspectives has provided a basis for exploring teachers' understanding of the notion quality of secondary school education. The perspectives themselves can stand as areas for research. Furthermore, the results have revealed different conceptions from teachers. The interpretations have further shown that the conceptions are contextual and were influenced by different factors such as subject area, experience in teaching, school context and other general challenges facing teachers. However, generally different questions on the notion quality and in relation to secondary school education and teachers' conceptions have been raised. Thus, researchers wishing to study in these areas may use the findings as point of reference.

In general this study provides a message and recommendations to different actors in the secondary school education sub-sector. The government and development partners supporting the development of secondary schools in the country have to revisit their plans and priorities to be able to meet the challenges posed in this study. Commitment is required on the development of existing teaching staff as there are teachers who severely lack knowledge and skills in the profession (see also Wedgwood, 2007, Komba and Nkumbi, 2008). Skipping topics, failure to use English properly in teaching (Senkoro, 2004), and to relying on examination formats in teaching (Hakielimu, 2007) are evidence of the need for collective commitment to improve teacher knowledge and skills. Researchers have the role of continuing to search for different, manageable and sustainable modes of in-service programs for teachers already in the profession. Programs at school level (Hardman et al, 2012) or those administered during weekend (Ngumbizi, 2009) can serve as cheaper options and minimize the drawing of teachers from classrooms.

As the country is shifting towards a competence-based curriculum, the quality of education at all levels needs to be at the forefront (World Bank, 2005). Teaching in schools, the training of teachers in colleges and universities, and modes of examinations need to improve. This study therefore sends a message to teachers, teacher educators, inspectors, educational planners, policy makers and examiners. More focus in terms of teaching, training of teachers, examinations and inspections need to be on building competences and improving the quality of learning to our students (see also Sumra and Rajani, 2006; Hakielimu, 2007).

However, improving the quality of education may have budget implications as the mobilization of resources in terms of teachers, teaching and learning materials, text books, science equipment, school structures and other facilities are also necessary. It is important that these elements be included in the national plans and education budgets.

## References

- Åkerlind, G. S. (2004). A new dimension to understanding university teaching. *Teaching in Higher Education*, 9(3), 363–375.
- Åkerlind, G. S. (2005). Variations and commonality in phenomenographic research methods. *Higher education research and development*, 24(4), 321-334.
- Åkerlind, G. S. (2007). Constraints on academics' potential for developing as a teacher. *Studies in Higher Education*, 32 (1) 21-37.
- Alam, M. T. and Farid, S. (2011). Factors affecting teacher motivation. *International journal of Business and social science*, vol. 2 (1).
- Allan, G. (2003). A critique of using grounded theory as a research method. *Electronic Journal of Business Research Methods*, 2(1) 1 – 10.
- Anyamele, S. C. (2004). *Institutional Management in Higher Education: A study of Leadership Approaches to Quality Improvement in University Management Nigeria and Finnish Cases*. Helsinki University Press, Finland.
- Attorps, I. (2006). *Mathematics teacher's conceptions about equation*. Helsinki: University of Helsinki.
- Bagnoli, C. (2006). Respect and membership in the moral community. *Ethical theory and moral practices*, Vol. 10 (29), 113-128.
- Babyegeya, E. (2006). Teacher education in Tanzania: development and prospects. *Journal of Issues and Practice in Education*, 1(2), 32-46.
- Bedi, K. and Sharma, J. K. (2006). Benchmarking the quality of secondary education at the micro and policy imperatives. U21 Global working paper number 13/ 2006. Downloaded on 3<sup>rd</sup> Oct, 2009 from [www.u21global.ed.sg](http://www.u21global.ed.sg).
- Benell, P. (2004). Teacher motivation and incentives in Sub-Saharan Africa and Asia. A report commissioned by DFID.
- Bennel, P and Mukyanuzi, F. (2005). Is there teacher motivation crisis in Tanzania? A report commissioned by DFID.

- Benson, J. (2005). 'A complete education?' Observation about the state of primary education in Tanzania. Hakielimu, working paper, 1, 2006.
- Bergeson, T. (2007). Nine characteristics of high performing schools. State Superintendent of Public Instruction. Washington.
- Binde, A. (2010). Conceptions of mathematics teacher education. Åbo Akademi University Press.
- Bloom, B. S. (1956). *Taxonomy of educational objectives, Handbook 1*. The cognitive domain. New York: David McKay co. inc.
- Bowden, J. (2005). Reflections on the phenomenographic research process. In *Doing developmental phenomenography*, J. Bowden and P. Green (Eds). Qualitative research methods series. Melbourne, Victoria: RMIT University Press.
- Bowden, J. A. (2000). The nature of phenomenographic research. In J. A. Bowden and E. Walsh (Eds). *Phenomenography*. Malbourne: RMIT Publishing.
- Bozkurt, E., Kavak, N., Yamak, H., Bilici, S. C., Darici, O., and Ozikaya, Y. (2012). Secondary school teachers' opinions about in-service teacher training: a focus group interview study. *Social and Behavioral Sciences* 46, 3502-3506.
- Brisk, M. E. (2006). *Bilingual Education: From Compensatory to Quality Schooling*. London: Lawrence Erlbaum Associates Inc.
- Brock-Utne, B. and Holmarsdottir, H. B. (2004). Language policies and practices in Tanzania and South Africa: problems and challenges. *International Journal of Educational Development* 24 (1), 67-83.
- Brown, S. C., Stevenson, R. A., Troiano, P. F. & Schneider, M. K. (2002). Exploring complex phenomena: Ground theory in student affairs research. *Journal of College Student Development*, 43(2), 173 -183.
- Buchert, L. (1994). *Education in the Development of Tanzania, pp. 1919–1990*. London: James Curry.
- Buczynski, S. and Hansen, C. B. (2010). Impact of professional development on teacher practice: Uncovering connection. *Teaching and Teacher Education*, 26, 599 – 607.

- Campbell, C. and Rozsnyai, C. (2002). Quality Assurance and the Development of course programs. Paper on Higher Education Regional University Network on government and management of Higher Education: Bucharest, UNESCO.
- Chapman, D. and Adams, D. (2002). Quality of education: Dimensions and strategies. *Education in Developing Asia, Vol. 5.*
- Cheng, Y. C, Chow, K. W and Tsui, K.T. (2002). New Conceptions of Teacher Effectiveness and Teacher Education in the New Century. *Hong Kong Teachers' Centre Journal, Vol. 1, Spring 2002*
- Cheng, Y.C. (2001). New Education and new teacher education: A paradigm shift for the future. In Y.C. Cheng, K. W. Chow, & K. T. Tsui (Eds.), *New teacher education for the future: International perspective (pp. 33-67)*. AA Dordrecht: Academic Publishers.
- Chimombo, J. P. G. (2005). Quantity versus quality in education: Case study in Malawi. *International Review of Education, 51, 155–172*
- Chireshe, R. and Shumba, A. (2011). Teaching as a profession in Zimbabwe: A teacher facing a motivation crisis? *Jsoc sci, 28 (1), 113-118.*
- Cohen, L., Manion, L., and Morrison, K. (2007). *Research methods in education, 6<sup>th</sup> ed.* Abingdon: Routledge.
- Creswell, J. W. (2008). *Educational Research. Planning, Conducting and Evaluating Quantitative and Qualitative Research* (3rd edition). Upper Saddle River, New Jersey: Pearson Education, Inc.
- Crosby, P. B. (1979). *Quality is Free*. New York: McGraw – Hill.
- Dall'Alba, G. (1991). Foreshadowing conceptions of teaching. *Research and Development in Higher Education, 13, 293–297.*
- Davidson, E. (2006). The pivotal role of teacher motivation in Tanzania. Dar es salam: Hakielimu. Working paper 7.
- Dembélé, M. (2005). Breaking the mold: teacher development for pedagogical renewal, In A. M. Verspoor (Ed.) *The challenge of learning: improving the quality of basic education in sub Saharan Africa*. (Paris, Association for the Development of Education in Africa (ADEA)).

- Dembélé, M. and Lefoka, P. (2007). Pedagogical renewal for quality universal primary education: Overview of trends in Sub-Saharan Africa. *International review of education*, 53, 531-553.
- Dembélé, M. and Oviawe, J. (2007). Quality education in Africa: International commitments, local challenges and responses. *Journal of International review of education*, 53, 473 – 483.
- Deming, W. E. (1982). *Out of the crisis. Quality, Productivity and Competitive position*. Cambridge: Cambridge University Press.
- Denzin, N. K., and Lincoln, Y. S. (2000). Introduction: The discipline and practice of qualitative research. In N. K. Denzin and Y. S. Lincoln (eds) *Handbook of Qualitative Research*, 2nd edition, London: Sage Publications.
- Douglas, D. (2003). Inductive theory generation: A grounded approach to business inquiry. *Electronic Journal of Business Research Methods*, 2(1), 47 – 54.
- Dowling, M. (2008). Client empowerment and quality assurance. *The public sector innovation Journal*, 13 (11).
- Eckel, P., Hill, B., and Green, M. (1998). *On change, En route to transformation*. Washington, DC: American Council on Education.
- Eklund-Myrskog, G. (1996). *Students' Ideas of Learning: Conception, approaches and outcomes in different educational context*. Abo Akademi University Press.
- Elton, L. (1992). University teaching. A professional model for quality and excellence. A paper to 'Quality by Degree' conference at Aston University, 8 June, 1992.
- Estyn, her Majesty's inspectorate: Inspection report on quality of secondary education in Hawardn high school, 2009.
- Even, R. (1993). Subject-matter knowledge and pedagogical content knowledge:
- Filippakao, O. and Tapper, T. (2008). Quality assurance and Quality enhancement in Higher Education: Contested territories. *Higher Education Quarterly*, 62(1), 84-100.

- Finnie, R. and Usher, A. (2005). Measuring the quality of post-secondary education: Concept, current practice and strategic plan. Canadian policy research network inc. Research report W/28 work network.
- Fishman, B., Max, R. W., Best, S. and Tal, R. T. (2003). Linking teacher and student learning to improve professional development in systemic reform. *Teaching and Teacher Education, 19*, 643 – 658.
- Flick, C. (2006). *An introduction to qualitative research (3<sup>rd</sup> ed)*. Sage Publications.
- Fraser, M. (1994). Quality in higher education: An international perspective In D. Green. (Ed.)(1994). *What is quality in higher education?* Buckingham: Open University press and Society for Research into Higher Education, pp.101-111.
- French, D. (2003). Subject knowledge and pedagogical knowledge. [www.itemath.org.uk](http://www.itemath.org.uk).
- Fullan, M. (1999). *The Sequel*. Palmer Press, Philadelphia
- Fullan, M. (2001). *The new meaning of education changes (3<sup>rd</sup> ed)*. New York: Teachers college, Columbia.
- Gajda, R. and Koliba, C. (2008). Evaluating and improving the quality teacher collaboration. A field test framework for secondary school leaders. *NASSP Bulletin, Vol. 92(2)*, 133-158.
- Galabawa, J. C. and Narman (2004). *Education for Poverty alleviation*. Dar es salaam: University Press
- Galukanda, M.; van Berkel, H. J. M. and Wolfhagen, I. (2009). Developing tool for measuring quality of medical education. *Education for health, vol. 22 (9)*, 1-3.
- Gholami, K. (2009). *Representing the epistemic nature of teachers' practical knowledge*. The case of class teachers' general pedagogy, Helsinki: University press.
- Gibbs, G. (2010). Dimensions of Quality. Higher education academy. Downloaded at [www.heacademy.ac.uk](http://www.heacademy.ac.uk) on 01 November, 2012.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report, Vol. 8(4)*, 597-607.

- Goldschmidt, P. and Phelps, G. (2010). Does teacher professional development affect current and pedagogical knowledge: How much and for how long? *Economic of education review* 29, 432-439.
- Gropello, E. (Ed). (2006). *Meeting the challenges of secondary education in Latin America and East Asia*. The World Bank: Washington DC.
- Guba, E. G. and Y. S. Lincoln. (1988). Do inquiry paradigms imply inquiry methodologies? In D. M. Fetterman. (ed.) *Qualitative approaches to evaluation in education: The silent scientific revolution*. (pp. 89-115.) London: Praeger.
- Gvaramadze, I. (2008). From quality assurance to quality enhancement in European higher education area. *European Journal of education, Vol. 48 (4)*. 143-155.
- Hakielimu (2007). Redefine quality education in Tanzania. From input to capabilities. Working paper, October, 2007. Dar es salaam.
- Hakielimu (2011). Restoring teacher dignity volume II: Teaching materials and housing. *Restoring teacher dignity series, volume II*, November, 2011. Dar es salaam.
- Hales, R. and Watkins, M. (2004). The potential contribution of phenomenography to study individuals' meanings of environmental responsibility. [www.latrobe.edu.au/education/.pdf](http://www.latrobe.edu.au/education/.pdf). Downloaded on 20<sup>th</sup> September 2011.
- Hardman, F., Abd-Kadir, J. and Tihuhinda, A. (2012). Reforming teacher education in Tanzania. *International Journal of Educational Development*, 32, 826-834.
- Harvey, L. (1999). New realities: the relationship between higher education and employment. Keynote presentation at the European association of institutional Research Forum, Lund, Sweden.
- Harvey, L. and Green, D. (1993). Defining quality. *Assessment and evaluation in Higher education*, 18(1), 9 - 34.
- Harvey, L. and Knight, P. (1996). *Transforming Higher Education*. Buckingham: Open University Press.
- Hativa, N. (2000). *Teaching for effective learning in Higher Education*. Dordrecht: Kluwer Academic Publisher



- Hoepfl, M. C. (1997). Choosing qualitative research: A primer for technology education researchers. *Journal of Technology Education*, 9(1), 47-63.
- Höjlund, G; Mtana, N.and Mhando, E. (2001). Practices and possibilities in Teacher education in Africa: perspectives from Tanzania .Ministry of education and culture. Dar es salaam.
- Hoppers.W. (2005). Community schools as an educational alternative in Africa: A critique. *International review of education*. 51, 115-137.
- Ishumi, A. G, and Maliyamkono, T. L. (1995). Education for self-reliance. In C. Legum and G. Mmari (Eds) (1995). *Mwalimu: The influence of Nyerere*. Dar e salaam: Mkuki na Nyota.
- Juran, J. M. and Gryna, F. M. (1980).*Quality Planning and Analysis*. McGraw-Hill, New York.
- Kagia, R. (2005). Quality education for all young people: Challenges, trends and priorities. *Prospects*, Vol. XXXV, No. 1, 2005.
- Kamalanabhan, T. J., Teeroovengadum, V., and Seebaluck, A. (2010). Service quality in education: Moving towards a holistic and transformative approach. A concept paper presented at the international research symposium in service management: Mauritius, 24-27, August, 2010.
- Kamwela, (2000). The experience of primary education program in Tanzania. In J.C.J. Galabawa, F.M.K. Senkoro and A.F. Lwaitama (eds). *The Quality of Education in Tanzania. Issues and experiences*. Faculty of Education, University of Dar es Salaam.
- Kellaghan, T., and J. Greaney. (2003). Monitoring Performance: Assessment and Examinations in Africa. Background paper commissioned by ADEA in the framework of *The Challenge of Learning Study*. Paris: ADEA.
- Kember, D (1997). A Re-conceptualization of the Research in University Academics' Conceptions of Teaching. *A Journal of Learning and Instructions*, 7(3), 255- 275.
- Kiley, M. and Mullin, G. (2005). Supervisors' conceptions of research: what are they? *Scandinavian Journal of education research*, 49 (3), 245 – 262.
- Kincheloe, J. L. (1999). *Teachers as Researchers: Qualitative inquiry as a path to empowerment*. London: Falmer Press.

- Kitchen, R. (2004). High achieving school initiatives. University of New Mexico.
- Koda, B. (2007). Education for sustainable development: The experience of Tanzania. A paper presented at the UniPID-EADI symposium on accessing development knowledge partnership perspective. Helsinki, 2007.
- Komba, W. and Nkumbi, E. (2008). Teacher Professional Development in Tanzania: Perceptions and Practices. *Journal of International Cooperation in Education, Vol.11 No.3 (2008) 67-83*
- Krzywacki, H. (2009). *Becoming a teacher: Emerging teacher identities in mathematics teacher education*. Helsinki: University of Helsinki, Department of applied science of education, research report 308.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. London: Sage Publication.
- Lankshear, C., and Knobel, M. (2004). *Teacher Research*. Maidenhead: Open University Press.
- Larzén, E. (2005). *In pursuit of an intercultural dimension in EFL-teaching. Exploring cognition among Finland-Swedish comprehensive school teachers*: Vasa: Åbo Akademi University Press.
- Lessibille, G., Tan, J., and Sumra, S. (199). Expansion of secondary private secondary school education: Experience and prospects from Tanzania.
- Leveson, L. (2004). Encouraging better learning through better teaching. A study of approaches to teaching in accounting. *Accounting Education, 13(4), 529–548*.
- Lewin, K. M. and Stuart, J. S. (2003). *Researching teacher education: new perspectives on practice, performance and policy*, Multi Site Teacher Education Research Project (MUSTER) Synthesis Report, (London, Department for International Development).
- Lomas, L. (2002). Does the Development of Mass Education Necessary Mean the end of Quality? *Quality in Higher Education, 8, (1), 71 – 79*.
- Lomas, L. (2007). Zen, Motorcycle maintenance and quality in higher education. *Quality assurance in education Vol. 15(4), 402-412*.

- Makombe, I. A. M., Kihombo A. R., Sesabo, J. B., Hodgson, A., and Spours, K. (2010). Building partnership for poverty reduction in Tanzania: Improving successful completion and progression from secondary education into further studies and working life. Morogoro: Mzumbe University. A research report presented at a dissemination seminar, Morogoro, November, 2010.
- Malekela, G. (2000). Quality of Secondary school education in Tanzania. In J.C.J. Galabawa, F.M.K. Senkoro and A.F. Lwaitama (eds) *The quality of Education in Tanzania: Issues and experiences*. Faculty of Education, University of Dar es Salaam.
- Malekela, G. A. (2001). Feminization of teacher education: Implication on quality. In G. Höjlund; N. Mtana, and E. Mhando. (2001). *Practices and possibilities in Teacher education in Africa: perspectives from Tanzania*. Ministry of education and culture. Dar es salaam.
- Manyanga, T. (2007). Standards for quality in tertiary education: The case of Tanzania. *Quality assurance in education, Vol. 16(2), 164-180*.
- Marton, F and Booth, S. (1997). *Learning and awareness*. Mahway, New Jersey: Lawrence Erlbaum Associate.
- Marton, F. (1981). Phenomenography Describing concepts of the world around us. *Instructional science, 10, 177-200*.
- Mayer, E. (1992). The Key Competencies: Report to the Australian Education Council and the Ministers for Vocational Education, Employment and Training (Melbourne, Australian Education Council).
- Meena, W. E. (2009). *Curriculum innovation in Teacher Education*. Åbo Akademi University Press.
- Michaelowa, K. (2002). Teacher job satisfaction, student's achievement and the cost of primary education in Francophone Sub-Saharan Africa. HWWA discussion paper, Hamburg, Institute of international economics.
- Michaelowa, K. (2007). The impact of primary and secondary education to Higher education quality. *Quality assurance in education, Vol. 15(2), 215 – 236*.
- Mkulo, M. (2011). Country budget speech for the financial year 2011/2012. Dar es salaam; Ministry of Finance.

- Mmari, G. (2001). Practices and possibilities in Teacher education in Africa: perspectives from Tanzania. In G. Höjlund; N. Mtana, and E. Mhando. (2001). *Practices and possibilities in Teacher education in Africa: perspectives from Tanzania*. Ministry of education and culture. Dar es salaam.
- MoEVT (2010). Basic education statistics in Tanzania. Dar es salaam. Ministry of education and vocational training.
- MoEVT (2011). Basic education statistics in Tanzania. Dar es salaam. Ministry of education and vocational training.
- Mortmore, P and Stone (1990). Measuring educational quality. *British Journal of Educational studies*, Vol. XXXIX (1), 69 – 82.
- Mosha, H. J. (2000). Conceptualizing quality education. In J.C.J. Galabawa, F.M.K. Senkoro and A.F. Lwaitama (eds) *The quality of Education in Tanzania: Issues and experiences*. Faculty of Education, University of Dar es Salaam.
- Mtika, P. D. G. (2008). *Teaching practice as a component of teacher education in Malawi: An activity theory perspective*. Nottingham: University Press.
- Mushashu, B. (2000). The Issues of Quality of Public Secondary Schools: What ought to be done? In J.C.J. Galabawa, F.M.K. Senkoro and A.F. Lwaitama (eds). *The Quality of Education in Tanzania*. Issues and experiences. Faculty of Education, University of Dar es Salaam.
- Mwaimu, A. S. M. (2001). Socio-cultural and political context of Teacher education: the case of Tanzania. In G. Höjlund; N. Mtana, and E. Mhando. (2001). *Practices and possibilities in Teacher education in Africa: perspectives from Tanzania* .Ministry of education and culture. Dar es salaam.
- N.A.O. (2008).National audit report. Dar es salaam.
- Nayer, U. S. (2004). Education for social transformation: A collective step forward. *The Journal of family welfare*, 50 (1).
- Ng, S. W. (2009). Transformation of students into active and participatory citizens: an exploratory study in Hong Kong. *Education research practice*, 8, 181-196.

- Ngimbudzi, F. W. (2009). *Job satisfaction among secondary school teachers in Tanzania*. University of Jyvaskyla, Department of educational science.
- Nilsson, P. (2003). Education for All: Teacher demand and supply in Africa. *Education International working paper, No. 12, 2007*.
- Norris, B. D. (2001). Transformation, diversity and organizational change within institutions of higher education. *South African Journal of Education, 21 (4)*.
- Nyerere, J. K. (1968a). The Arusha Declaration. *Freedom and Socialism*. Dar es Salaam: Oxford University Press.
- Nyerere, J. K. (1968b). Education for self-reliance. *Freedom and Socialism*. Dar es Salaam: Oxford University Press.
- O'Neil, M. and Onion, K. (1994). An outcomes approach to a degree program In P. Ninghtingale and M. O'Neil (Eds.) *Achieving Quality Learning in Higher Education* (London, Kogan Page).
- Ololube, N. P. (2006). Teacher education, school effectiveness and improvement. University of Helsinki.
- Orleans, A. V. (2007). Recent development and remaining challenges for substantive improvement. *The Australian educational researcher, Vol. 34 (1), 33-54*.
- Pang, M. F. (2003). Two face variation: on continuity in the phenomenographic movement. *Scandinavian Journal of education research, 2 (47), 145 – 156*.
- Parri, J. (2006). Quality in higher education. *Vadyba/management.m.Nr.2(11)*.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2<sup>nd</sup>ed). Newbury: Sage Publications.
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods*. California: Sage Publications.
- Peters, T. (1992). *Liberation Management*. London: Macmillan.
- Peterson, G. (2005). Medical and nursing students' development of conceptions of science during three years of studies in Higher Education. *Scandinavian Journal of education research, 49 (3), 283 – 296*.

- Prosser, M., Trigwell, K. and Taylor, P. (1994). A phenomenographic study of academics' conceptions of science learning and teaching. *Learning and Instruction*, 4, 217–231.
- Qorro, M. (2006). Does language of instruction affect quality of education? *Hakielimu working paper no 8, 2006*:
- Rao, V. K. (2003). Quality education. S.B.Nangia, New Delhi, India.
- Ratcliff, D. (1995). An elementary school hallway: Social formations and meanings outside the classroom. Doctoral dissertation. University of Georgia.
- Roy-Campbell, Z. M. and Qorro, M. (1997). Language crisis in Tanzania: the myth of English versus Education. Dar es Salaam, Mkuki na Nyota Pubs.
- Rubagumya, C. (2001). Language of teaching and learning in Tanzania: Implication for teacher education. In G. Höjlund; N. Mtana, and E. Mhando. (2001). *Practices and possibilities in Teacher education in Africa: perspectives from Tanzania*. Ministry of education and culture. Dar es salaam.
- Saddon, J. (2000). The Case against ISO 9000, (2<sup>nd</sup> Ed). Dublin: Oak Tree Press.
- Säljö, R. (1988). Learning in educational settings: Methods of inquiry. In P. Ramsden (Ed.). *Improving Learning: New Perspectives*, New York, NY: Nichols Publishing, 32-48.
- Sallis, D. E. (2002). *Total quality management in education*. London, Kogan page Ltd.
- Samuelowicz, K. and Bain, J. D. (1992). Conceptions of teaching held by academic teachers. *A Journal of Higher Education*, 24, 93 – 111.
- UNESCO (2000). *Improving school effectiveness*. UNESCO: Paris.
- Senkoro, F. E. M. K. (2004). The role of language in Education and Poverty Alleviation: tool for access and empowerment. In J. C. J. Galabawa and A. Narman (eds). *Education, Poverty and Inequality*. Dar es Salaam.
- Shahzad, S. (2007). A study to investigate the quality of education at intermediate level in Punjab. Doctoral thesis, university of Arid Agriculture, Rawalpindi, Pakistan.

- Shann, M. H. (2001). Professional commitment and satisfaction among teachers in urban middle schools. *The Journal of Educational Research*, 92, (2), 67- 73
- Shulman, L. (1992). Ways of seeing, ways of knowing, ways of teaching, ways of learning about teaching. *Journal of curriculum studies*, 28, 293-396.
- Shuttleworth, M. (2008). Definition of Research. Experiment research. [www.experiment-research.com](http://www.experiment-research.com). Retrieved on 29-Sept, 2011.
- Sifuna, D. (2007). The challenges of increasing access and improving quality: An analysis of Universal Primary Education intervention in Kenya and Tanzania since 1970s. *International Review of Education*, 53, 687 – 699.
- Silverman, D. (2006). *Interpreting qualitative data: Methods for data analyzing, and interaction*. London: Sage Publication.
- Stamouli, L. and Huggard, M. (2007). Phenomenography as a tool for understanding our students. International symposium for Engineering Education. Dublin City University, Ireland.
- Stensaker, B., Brandt, E., and Solum, N. H. (2008). Changing systems of external examinations. *Quality assurance in Education*, 16 (3), 211-223.
- Strauss, A., and Corbin, J. (1990). *Basic qualitative research. Grounded theory procedures and techniques*. Newbury Park: Sage Publication.
- Sumra, S. and Rajani, R. (2006). Secondary education in Tanzania: Key policy Challenges. Working paper on The Norwegian Post- Primary Education Fund for East Africa (NPEF), Oslo, 13 – 14 Sept, 2006.
- Sutton, I. (2005). Transforming pedagogy in our secondary classroom: pre-service teacher and community based action learning. A paper presented at Global perspective in an integrated curriculum conference, 3<sup>rd</sup> – 4<sup>th</sup>, November, 2005.
- The Concise Oxford Dictionary of Current English 1990.
- Trigwell, K. (2000). A phenomenographic interview on phenomenography. In J. A. Bowden and E. Walsh (Eds), *Phenomenography*. Melbourne; RIMT Publishing.
- Trigwell, K., and Prosser, M. (1996). Changing approaches to teaching: A relational perspective. *Studies in Higher education*, 21 (3).

- Trigwell, K., Prosser, M., and Waterhouse, F. (1999). Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education*, 37, 57-70.
- Uljens, M. (1996). On the philosophical foundations of phenomenography. In G. Dall'Alba & B. Hasselgren (Eds.), *Reflections on phenomenography: Toward a methodology?* (Gothenburg Studies in Educational Sciences No. 109). Gothenburg: Acta Universitatis Gothoburgensis.
- UNESCO (2004). Teacher's pay and conditions: An assessment of recent trend in Africa. EFA, Global monitoring report. Paris.
- UNESCO (2005). Accountability in education. <http://www.unesco.org>
- URT (1995). Education and Training Policy. Dar es Salaam: Ministry of Education and Culture.
- URT (1998). The Tanzania vision, 2025. Dar es salaam.
- URT (1999). The higher education policy. Dar es Salaam: Ministry of higher education, Science and Technology.
- URT (2000). Poverty reduction strategy program. Dar es salaam.
- URT (2001). Teacher Education Master Plan (TEMP). Dar es Salaam: Ministry of educations and Culture.
- URT (2004). Secondary Education Development Program (SEDP). Dar es Salaam: Ministry of Education and Vocational Training.
- Vavrus, F. (2009). The cultural politics of constructivist pedagogies: Teacher education reform in the United Republic of Tanzania. *International Journal of Education Development*, 29, 303-311.
- Vedder, P. (1994). Global measurement of the quality of education: A help to developing countries. *International review of education*, 40(1), 5 – 17.
- Vlăsceanu, L., Grünberg, L., and Pârclea, D. (2004). *Quality assurance and accreditation: a glossary of basic terms and definitions*. Paper on Higher Education, ISBN 92-9069-178-6, <http://www.cepes.ro/publications/default.htm>.
- Warn, J. and Tranter, P. (2001). Measuring quality in higher education: A competence approach. *Quality in higher education*, 7 (3).191-198.



- Wedgwood, R. (2005). Post-Basic education and poverty in Tanzania. Working paper series 1. Centre for African studies, University of Edinburgh, July, 2005.
- Wedgwood, R. (2006). Education and poverty reduction in Tanzania. Working paper series 9. *Hakielimu: Dar es salaam*, 2006.
- Wedgwood, R. (2007). Education and poverty reduction in Tanzania. *International Journal of Educational development*, 27, 383 – 396.
- Weir, A (2009). Assuring quality in higher education: The New Zealand experience. *Journal of institutional research*, Vol. 14(2), 60-72.
- Winter, G. (2000). A comparative discussion of the notion of validity in qualitative and quantitative research. *The Qualitative Report*, 4(3 and 4).
- World Bank (2005). A regional exploration of pathways towards harmonization of mathematics and science curriculum in east Africa community. A discussion paper. Available on [www-wds.worldbank.org](http://www-wds.worldbank.org)
- World Bank (2004). Program Document for a proposed financing to the United Republic of Tanzania for a Secondary Education Development Program. Washington DC, World Bank, Report No 27613.
- World Bank (2008). SEIA synthesis report. Available at [www.siteresources.worldbank.org](http://www.siteresources.worldbank.org)
- Wort, M. A. A. (1999). Basic education renewal in Tanzania: Lesson learnt from the district based support to primary education. In J. C. Galabawa (Ed.), *Basic education renewal research for poverty* (pp. 263-292). Dar es Salaam: KAD Associates/TFC.
- Wort, M. A. and Sumra, S. (2001). Dilemma in in-service teacher education and teacher resource centers. In G. Höjlund; N. Mtana, and E. Mhando (2001). *Practices and possibilities in Teacher education in Africa: perspectives from Tanzania*. Ministry of education and culture. Dar es salaam.
- Zhang, L. (2008). From conceptions of effective teachers to styles of teaching: Implication for higher education. *Learning and individual differences*, Vol. 19(1), 113 – 118.

# Appendix

## Interview Guide for Teachers

### Preliminary information of teachers

1. Name
2. Education: What qualification level?
3. Teaching subjects: Subject taught, Number of periods
4. Experience in teaching: Number of years in teaching

Research question 1: What conceptions do teachers have of the quality of secondary school education?

1. What do you understand about the notion quality? Can you explain?
2. What does it mean by the term quality of education?
3. Can you describe in your own words ‘what quality of secondary school education is all about?’
4. What are the elements that can be used to describe quality of secondary school education?

Research question 2: What conceptions do teachers have of quality improvement in secondary school education?

1. What do you think quality improvement is all about?
2. What is quality improvement to secondary school education?
3. Can you explain how quality can be improved in secondary school education?
4. What makes secondary school education need improvement? Explain
5. What is your role in improving quality in your school and subject area? Explain
6. What are the roles of other actors in improving quality of secondary school education? Explain
7. What do you think you’re working can improve the quality of secondary school education?

## Category system for research question 1

Categories	Sub-categories	Aspects
Quality as meeting aims of society	Implementing a balanced curriculum	Practical knowledge Theoretical knowledge
	Acquisition of knowledge and skills for self-reliance	Skills for work Skills for daily life
Quality as individuals' achievements and capacities	Achievements in examinations	Quality of schools Effectiveness in teaching
	Appropriate use of students' capabilities	Cognitive potential Social abilities
Quality as possession of competences	Possession of identities	Self-identification Social value or respect
	Competence in the language of instruction	Mastery in the language of instruction Fluency in the language of instruction
Quality as meeting the challenges of education	Dealing with overcrowded classes	Lack of classrooms Lack of teachers
	Addressing the lack of teaching and learning materials	Unavailability of materials Lack innovative or creative skills
	Meeting the challenge of a poor teaching force	Poor training of teachers Untrained teachers

## Category system for research question 2

Category	Sub-category	Aspects
Quality improvement as enhancement of systems	Improved teacher earnings and compensation	Improving teachers' salaries  Special allowances  Teaching allowance  Improving the promotion scheme for teachers.
	Improved school contexts	Lack of housing  Lack of teachers' offices  Lack other essential facilities
	Improved teaching practices	Interactions in classes  Student support is difficult  Poor command in the language of instruction  Regular inspection
Quality improvement as empowerment of individuals	Improved teacher preparation	Initial teacher education  Professional development
	Developing knowledge and skills for developing teaching materials	Supplied materials  Lack of skills to improvise

# Organizational Structure and Position of Secondary school education in Tanzania

## Prime Minister's Office- Regional Administration and Local Government Authorities



Source: P MO- R ALG (2011) Organization structure

George Batano Jidamva

**Understanding and Improving  
Quality of Secondary School Education**

Conceptions among Teachers in Tanzania

Quality has during the last decades become an important issue worldwide in education. Studies have been conducted from national to international levels. In sub-Saharan Africa countries, research on improving the quality of secondary education is at the forefront. Interest has been in finding solutions to the challenges caused by increased enrollment. But what are appropriate strategies for improving the quality of secondary school education in a country like Tanzania? What do teachers understand by the notion quality of secondary school education? This study deals with teachers' conceptions on these kinds of questions. Using an interview guide, the author has investigated conceptions from teachers with a varied range of teaching experience, and subject areas. The results offer insights into a selected group of teachers working under the same conditions as secondary school teachers. The knowledge generated can therefore be considered relevant for viewing teachers' conceptions beyond the selected group of respondents, and can benefit different key actors in education as it provides a platform for strategies on improving quality in secondary school education.

