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Availability of Instructional Resources for Quality Education in Public Secondary Schools of Karatu District, Tanzania

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Abstract: The purpose of this study was to assess the perceptions of teachers on the availability of instructional resources for quality education among Public Secondary Schools in Karatu District. The study used the descriptive design. It employed both quantitative and qualitative approaches in the sense that both closed ended and open -ended instruments were used to gather data from respondents. A sample size of 237 teacher respondents was determined using the Yamani's mathematical formulae. Data were collected using questionnaires, interview schedule and documents. Based on the findings, the study concluded that there is inadequate number of teachers especially for science subjects in the schools investigated. The inadequate number of teachers caused the workload to exceed the one required by the policy in a class. Secondly, schools missed reference books and specific subject did not have adequate number of textbooks. Furthermore, schools missed modern facilities like computers and projectors for use during the teaching and learning process. Based on conclusions, the study recommended a need for education administrators to ensure that schools are supplied with adequate number of teachers for each subject. This will reduce teachers' workloads and enable teachers to spend much of their time with students, helping them to reach their full potentials. Furthermore, there is a need for the government of Tanzania through relevant authorities to look for means to increase the number of required reference books and textbooks.

Keywords: Teachers; quality education; availability; adequacy; instructional materials; staffing.

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Introduction

Quality education is a pillar of development as the greatest tool a nation can offer to its youth is education. A healthy society is nurtured through

provision of quality education that is accessible and is relevant (UNESCO, 2007). That is why the world has been emphasizing on quality education, demanding countries to increase education budgets

to at least 6% by every year (UNDP, 2006). Hence, the query remains on the quality of education offered in developing countries.

Quality education refers to skills and knowledge that is potentially able to reflect the level of attainment of intended objectives (Asikia, 2013). For example, if Standard One pupil must know how to read and write, then quality of education is the ability of the pupils to demonstrate the attainment of reading and writing ability at that particular level. In this view, one can declare that each level of education has to reveal a manifestable level of the learners' ability as stipulated in the education curricula. Even though there are a number of factors that are significant to the offering of quality education, the thrust of the same remains on the demonstration and the ability of the education system in dealing with problem solving skills.

Olowoselu and Bello (2015) defined educational quality using a conceptual framework that depicts education as a productive system in which inputs are transferred into outcomes. However, data on students' earlier performance was not available and therefore value-added analysis was not optimal in that particular study. The authors argued that educational performance can be measured in terms of student's scores in reading, writing and scientific literacy. Hanushek et al. (2008) conducted a study in Kenya to establish the effect of teaching and learning materials on the quality of teaching and learning. The study revealed that quality of teaching and learning materials has a positive effect on academic performance of learners.

Education has been recognized as a critical element in achieving goals of human development, political stability as well as economic competitiveness (Acedo, 2002; Alvarez et al, 2003; King et al, 2007; World Bank, 2007). As an intermediary step between primary and tertiary education, secondary education is meant to serve as a preparatory stage for youth before they enter the workplace, with the objective to equip them with relevant skills, aptitudes and social values needed for productive and healthy adult life (Jacob & Lehner, 2011).

In Tanzania, education has been considered as a national priority for economic development. Hence, the provision of secondary education has been believed to provide the optimum avenues to prepare children for healthy and productive adult lives and to participate fully in the national economic development (UNESCO, 2010). For

countries like Tanzania to compete in the global economy, a significant number of citizens need quality secondary education for them to acquire specific skills necessary for the increasing technology driven market environment (Jacob & Lehner, 2011). For that matter, in the mid of 1990s, the Tanzania Government introduced the Millennium Development Goals (MDGs) and the Education for All (EFA) initiatives to drive the education reform agenda which focused on improving access to primary and secondary education (Acedo, 2002). While Secondary Education occupies a pivotal role in the functioning of the economy in Tanzania, literature shows that the majority of people in both private and public sectors are expected to be secondary education leavers capable of working as productive citizens (Gideon, 2014). Furthermore, primary education system relies on teachers who are the product of secondary education system. This is the essence of secondary education being pivotal toward economic, political and social development of the Country.

According to URT (2010), education helps in transforming the mindset and culture which promote the right attitude, influence confidence, community development and commitment to face development challenges and enables learners to exploit every opportunity for quality livelihood. A study by UNESCO (2005) and Human Right Watch (2017) established that education is one of key indicators for the development level. Therefore, quality education should be a matter of concern to educationists, curriculum developers and other education stakeholders.

The Concept of Quality Education

Quality education can be defined in various ways. According to Slade (2017), quality education involves learners who are healthy, well-nourished and ready to participate in efforts toward the national development. This can be realized when schools are provided with adequate resources and facilities necessary for effective teaching and learning. Provision of quality education is a priority that every country aspires to include in national goals (Mphale & Mhlauli, 2014). Raising the quality of education is one of Tanzania's national goals. According to Kihuria (2015), the purpose of education is to equip citizens with appropriate values, skills and knowledge to reshape their society and face prevailing challenges. Education helps individuals to develop capabilities, right attitude and

appropriate behavior for national development. Quality education enables members to spearhead the country's economy.

Staffing and Quality Education

UNESCO (2010) noted that teachers are a critical education resource in any country. From early childhood program through primary and secondary school, the presence of qualified and well-motivated teachers is vital for effective learning and performance. Effective teaching strongly influences how much learners achieve intended learning objectives. Benya (2010) asserted that noble the objectives of any educational program may be, central to their success is qualified teachers. Therefore, before taking off any educational program, adequate provision of teacher must have been put in place because the quantity and quality of manpower put in place has a great influence on the kind of school products.

Lyimo et al. (2017) quoted Hargreaves (2000) who argued that there is no any educational system that can rise above the quality of its teaching personnel and that no nation can be elevated above the level of its teaching staff. Therefore, the power of qualified teachers cannot be underestimated. In support of this view, Mosha (2014, p. 15) reiterated that the success or failure of any educational system depends on the quantity and quality of its teachers.

Kemmerer (2001) contended that the destiny of any nation is shaped in its classrooms and teachers are very important instruments in shaping the destiny of the nation. Teacher are described as the spark that forces the whole development process in any country (UNESCO, 2005). Therefore, the success of any education system depends on availability of qualified teachers in the country.

Instructional Materials and Quality Education

The primary purpose of the teaching and learning process is to bring significant changes in behavior through active participation and critical thinking of the learners. This cannot take place without appropriate instructional materials (Likoko et al., 2013). According to Likoko et al. (2013), instructional materials are of vital importance for effective teaching of any subject. Muthamia (2009) argued that the use of instructional resources in classroom enhances the discovery of facts in the process of learning.

Owoeye and Yara (2011) argued that instructional materials assist teachers to make lessons much

clearer to the learners. They further provide sound and visual output to sense organs during the teaching and learning process. In Nigeria, Adeogun (2010) discovered a strong, positive and significant relationship between instructional resources and academic performance. The study further established that schools with more resources performed better than schools with lesser resources. Therefore, provision of sufficient educational resources had a positive impact on learner's performance.

Therefore, this study investigated the availability of instructional resources for quality education among public secondary schools in Karatu District, Tanzania.

Methodology

Design

The study used the descriptive design. It employed both quantitative and qualitative approaches in the sense that both closed ended and open -ended instruments were used to gather data from respondents.

Population and Sampling

Both simple random and purposive sampling were adopted to select the required sample from each department. A sample size of 237 teacher respondents was determined using the Yamani's mathematical formulae. Data were collected using questionnaires, interview schedule and documents. Questionnaire was administered to teachers while the interview guides were administered to officials from the District Council such as District Educational Officer (DEO), District Executive Director (DED), Ward Education Coordinator (WEC) and Headmasters.

Table 2: Reliability Test Results

SN	Variable	Cr. Alpha	Interpretation
1	Staffing Status	.824	Reliable
2	Materials	.849	Reliable

Validity and Reliability

Construct validity was ensured through critical examination of the research questions against the items in the instruments by the help of research experts from the Open University of Tanzania.

To establish the reliability, a pilot study involving 30 teachers was conducted in a population with similar characteristics with the target sample. As seen in table 1, Cronbach's Alpha (α) was used to measure internal consistency strength whereby $\alpha > .9$ = excellent, $\alpha > .8$ = good, $\alpha > .7$ = acceptable, $\alpha > .6$ =

questionable, $\alpha > .5$ = poor and $\alpha < .5$ = unacceptable. The reliability ranged between 0.824 and 0.891 implying that information in the questionnaire was reliable.

Statistical Treatment of Data

The analysis of data involved Cronbach's Alpha to establish the internal consistence of the questionnaire as well as descriptive statistics in terms of means and standard deviations to determine perception of respondents regarding various constructs in this study. Questionnaire respondents were needed to rate various items using the four- point Likert scale under the following interpretations: 3.50-4.00 = strongly agree, 2.50-3.49= agree, 1.50-2.49 = disagree and 1.00-1.49 = strongly disagree. The qualitative data was analyzed through the thematic approach.

Table2: Staffing Status as Perceived by Teachers

SN.	Item	Mean	Std. Dev	Interpretation
1.	My school has a teacher for guidance and counselling	2.90	.88030	Agree
2.	My school has a teacher for sports and game	2.81	1.03293	Agree
3.	My school has adequate number of teachers	2.48	.80549	Disagree
4.	Teachers have manageable teaching load	2.44	.83170	Disagree
5.	Teachers are equally distributed per subjects	2.41	.85432	Disagree
6.	Each subject has sufficient number of teachers	2.14	.77051	Disagree
	OVERALL MEAN	2.54	.62831	Agree

However, mean score for the rest of items was between 1.50 and 2.49 denoting that teachers disagreed that their schools have adequate number of teachers, teachers have manageable teaching load, teachers are equally distributed per subject and that each subject has sufficient number of teachers. Therefore, much as schools under investigation had teachers for sports, games, guidance and counseling programs, the number of teachers was not adequate to cater for the need of every subject, something which may lead teachers to be overloaded with teaching assignments.

According to URT (2010), poor performance in form four secondary school examinations is attributed to acute shortage of teachers and unequal distribution of teachers in the education sector which have been established in this study. The limited staffing in the schools was further supported by one of the Headmasters through interviewee who admitted that they had inadequate teachers to cater for all subjects:

I have a shortage of teachers in various subjects such as sciences, guidance and counselling and as such it makes

Results and Discussion

Results are presented according to guiding research questions as follows:

Research Question 1: What is the staffing status among public secondary schools in Karatu District?

As indicated in Table 2, the overall mean score for teachers regarding staffing status was 2.54 which falls within the agreement zone (2.50-3.49), denoting that teachers generally agreed that staffing status in their schools is adequate. Looking into specific items, teachers agreed that their schools have teachers for guidance and counseling and for sports and games. This is very worthy noting as guidance and counseling is an essential ingredient for appropriate students' behavior. Furthermore, sports and games are essential for physical fitness of the learners.

impossible for students to finish syllabus before they sit for final examinations. This may be due to the fact that teacher training institutions that offer science and guidance and counselling subjects are inadequate to cater for the prevailing demand (Interview with the Head Masters, April, 2020).

The findings could mean that respondents believed that insufficient supply of teachers especially in science subject may be one of responsible factors for poor performance of students in their National Examinations. This situation concurs with Lyimo et al. (2017) who quoted Mosha (2014) arguing that there is inadequacy of teaching staffs to be able to assist the implementation of education goals in most secondary schools in Tanzania, especially community built schools.

Research Question 2: To what extent are instructional materials available in public secondary schools of Karatu District?

As observed in Table 3, the overall mean score for teachers' response in this question was between 1.50 and 2.49 which means teachers generally

disagreed with the items in the questionnaire. Looking into specific items in the table, we come to realize that teachers agreed that schools have such

resources like charts, maps and globes for teaching and learning.

Table 3 Perception of Teachers on Availability of Instructional Materials

SN	Item	Mean	Std. Dev	Interpretation
1.	My school has such resources like charts, maps and globes	2.56	.81881	Agree
2.	Apart from text books, my school has reference books	2.28	.85735	Disagree
3.	Each subject has adequate number of text books	2.06	.72667	Disagree
4.	My school has adequate number of text books	2.05	.76249	Disagree
5.	There are modern facilities like computer for teaching and learning	1.99	.87109	Disagree
6.	The school has projector for use in classes	1.90	.95057	Disagree
OVERALL MEAN		2.15	.60617	Disagree

However, teachers disagreed that schools have reference books ($M=2.28$, $SD=.85735$) and that each subject has adequate number of textbooks ($M=2.06$, $SD=.72667$). Furthermore, they disagreed that schools had modern facilities like computers and projectors for use during the teaching and learning process ($M=1.99$, $SD=.87109$). Therefore, schools seem to experience scarcity of instructional materials for maximized teaching and learning efficiency. The findings are in harmony with those by Sumra and Rajani (2006) which discovered that community-built schools in Tanzania lacked most of the important facilities like laboratories and teaching and learning materials. Therefore, instructional and physical materials could be one of the important factors affecting the provision of quality education in Karatu District.

One interviewee reported that “teaching and learning materials are not sufficient especially for science and arts subjects as we don’t have things like reference books, text books and teaching aids. This leads to poor performance of both teachers and students” (Interview with the Headmasters, April 2020). According to Nyamubi (2003), teaching materials are very important in the process of teaching and learning, hence shortage of it would affect negatively the achievement of educational objectives. Therefore, shortage of teaching-learning materials could be a contributing factor for poor provision of education in Public Secondary Schools in Karatu District.

Conclusions and Recommendations

Conclusions

Based on the findings, the study concludes that there is inadequate number of teachers especially for science subjects in the schools investigated. The inadequate number of teachers caused the workload to exceed the one required by the policy in a class. Secondly, schools missed reference books

and specific subject did not have adequate number of textbooks. Furthermore, schools missed modern facilities like computers and projectors for use during the teaching and learning process.

Recommendations

Based on conclusions, the study recommends a need for education administrators to ensure that schools are supplied with adequate number of teachers for each subject. This will reduce teachers’ workloads and enable teachers to spend much of their time with students, helping them to reach their full potentials. Secondly, there is a need for the government of Tanzania through relevant authorities to look for means to increase the number of required reference books and textbooks. The authority should also ensure sufficient modern facilities such as computers and projectors in order to enhance the quality of teaching and learning for realization of quality education in the public secondary schools.

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