Tanzanian Journal of Population Studies and Development, Vol. 29 No. 2, 2022: 44-61

Fee-free Education Capitation Grants and Educational Facilities: A Case of Four Selected Government Secondary Schools In Ukerewe District, Tanzania

Marco Boniphace[*] *& Deborah Ngusa*[§]

Abstract

The article addresses the implementation of Tanzania's fee-free secondary education Circular No. 5, which is complemented by capitation grants offered for improving students' educational facilities in public schools. Specifically, it examines the process of allocating capitation grants to improve students' learning facilities in selected government secondary schools in Ukerewe District, Tanzania. The article adopts the resource-based theory to explain the significance of improving learning facilities in secondary schools. A cross-sectional design was applied to conduct a survey in selected secondary schools. Data was collected through questionnaires served to a sample size of 96 respondents. Non-participant observation and focus group discussions were also conducted to collect in-depth information. Secondary data was collected through documentary reviews from various sources. Descriptive statistical analysis was applied to quantitative data to get frequencies and percentages in different scenarios that were determined through cross-tabulation. Qualitative data was analysed through content analysis to get detailed information about the study topic. The findings show that capitation grants provided for renovating students' educational facilities were not sufficient to attain the required standards. Statistics indicate extreme deficits of classrooms. In addition, there was a scarcity of laboratories and libraries; one secondary school did even not have electricity. The article concludes that the process of improving students' learning facilities has not been successful. Thus, the government should increase the amount of capitation grants for renovating and building students' learning facilities to ensure that public schools are able to accommodate the rising number of students who are taking the advantage of the fee-free secondary school education.

Keywords: *capitation grants, education, facilities, fee-free education, secondary schools*

1. Introduction

Fee-free secondary education requires the government to disburse adequate capitation grants for improving learning facilities to accommodate the increasing number of students who are taking the advantage brought about by the fee-free arrangement. In developed countries, for instance in the US, the public sector usually provides fee-free education that is funded in three levels: federal government, state government, and local government (Lyanga & Chen,

[*] Mibungo Secondary School, P.O. Box 45, Ukerewe, Tanzania.
[§] Institute of Development Studies, University of Dodoma.

 ▪ *https://doi.org/10.56279/tjpsd.v29i2.172*

2020). In Europe, basic education is provided free of charge from the kindergarten level, where governments provide funds for running programmes (Ustun & Eryilmaz, 2018). In Finland, the provision of education is fully-funded by the government at all levels, from kindergarten to university (Ustun & Eryilmaz, 2018). In Sub-Saharan Africa (SSA), governments are implementing the fee-free education policy; with most countries funding tuition fees in kindergarten, primary and secondary schools (Bonsu, 2021). In Kenya, the government meets the teaching costs, while parents pay for all other non-teaching expenses of secondary education (Ngware et al., 2017). In Ghana, fee-free education was introduced in 2005 with the support of school capitation grants provided by the government (Ekundayo, 2018). The government allocates yearly budget funds for improving educational facilities (ibid.).

The government of Tanzania planned a series of policies through a number of circulars that were implemented back-to-back, to support the process of offering fee-free education in the country. The dominant circulars include Circular No. 5 (2015), No. 6 (2015), and No. 3 (2016). Circular No. 6 (2015) required parents or guardians to contribute towards school uniforms, learning materials, meals, medical expenses, mattresses, bed-sheets and personal needs, for those who lived in dormitories and hostels. Circular No. 3 (2016) provided clarification of responsibilities to be handled by various education stakeholders. This article focuses on the Circular No. 5 (2015) that eliminated school fees, and which was accompanied by capitation grants for improving students' learning facilities (Shukia, 2020). The circular states: "Provision of free education means pupils or students will not pay any fee or other contributions that were being provided by parents or guardians before the release of the new circular" (URT, 2015). This was mainly targeted at secondary schools where contributions and fees had been noted to be substantial hurdles to enrolment, preventing poorer parents and guardians from sending their children to school.

The fee-free secondary education Circular No. 5, 2015 came into force in 2016, during which time the government and development partners had pooled funds to meet the needed expenses (Godda, 2018; Mashala, 2019; Kim et al., 2022). This article discusses the contribution of capitation grants provided to improve students' educational facilities in secondary schools. Educational facilities in this article are conceptualized by adopting the resource-based theory to show the importance of improving the quality of such facilities. Statistics show that a lot of secondary educational facilities were renovated between 2016 and 2018 through capitation grants provided by the central government (Godda, 2018). To accommodate the increased number of students in public schools, the central government allocated 33% of the capitation grants for renovating classrooms, libraries, laboratories and installation of electrical power supplies; while 67% was set for administrative costs, including academic matters (Orodho, 2014).

Despite such allocation, however, some government secondary schools in Tanzania still do not have sufficient and furnished learning facilities—e.g. classrooms, libraries and laboratories (URT, 2018).

The targeted students' educational facilities in this article included classrooms, libraries, laboratories and electricity as essential items in the learning process. This is due to the fact that implementation of Circular No. 5 aimed at reducing contributions and fees by parents and guardians. As a result, this significantly increased the enrolment of students in schools (Mashala, 2019). The government provided capitation grants to increase or expand educational facilities in schools to accommodate the soaring number of students. However, in Ukerewe District, like in many other places in Tanzania, there were insufficient facilities despite the capitation grants provided to support renovation and construction of buildings (Magogwa, 2021). Generally, the study investigated the process of implementing Circular No. 5 for improving educational facilities in selected government secondary schools in Ukerewe District, Tanzania.

2. Theoretical Underpinning about Educational Facilities

As mentioned above, educational facilities in this article are analysed using the resource-based theory (RBT). The theory provides assumptions for the central idea of possessing resources to achieve a particular task. Wernerfelt developed the theory in 1984, which analyses and interprets resources from organizations, and puts emphasis on potentials for articulating strategies to attain sustainable competitive benefits (Kraaijenbrink et al., 2010). The theory asserts a central assumption which claims that resources are rare, immovable, and non-substitutable (Kraaijenbrink et al., 2010). The theory has three specific assumptions as discussed below.

First, the theory assumes that resources are rare. This means that resources—such as cash or capital—are difficult to acquire from existing potentials. The theory entails the "growth of early start-ups" by emphasizing the role of accessing resources for investing in a particular activity (Uhm et al., 2018). Resources in this article are of paramount importance to facilitate the implementation of secondary education Circular No. 5 under the fee-free education policy. These resources, as already mentioned, are capitation grants that have been insufficient for enhancing learning potentials in public secondary schools. The central government provides capitation grants for renovation and construction of students' educational facilities, but there is still a deficit of classrooms, libraries and other requirements.

Secondly, the theory assumes that some resources are immovable; meaning that they cannot be moved from one location to another, for instance, land, buildings and water sources (oceans, lakes, rivers and ponds). In this article, targeted immovable resources include classrooms, laboratories, libraries and electric power installations. The assumption cautions the central government to distribute capitation grants wisely in public schools to ensure equality in the implementing of fee-free secondary education.

Thirdly, the theory assumes that resources are non-substitutable. This means that there are no substitutions as alternatives for a particular resource. As far as this article is concerned, when users decide to substitute a resource, it cannot meet the requirements of a task previously scheduled. For instance, to substitute a classroom for a library would not meet the purposes for which the resource was originally suited.

The resource-based theory has strengths in explaining the fact that resources are rare, some are immovable and they cannot be substituted. The assumptions have some realities in development aspects, and how resources are required during the implementation of certain interventions. These assumptions link to the implementation of the fee-free secondary education that requires sufficient resources to meet set standards. School growth requires ensuring the availability of teaching and educational facilities as resources for guaranteeing the provision of quality education (Ndibalema, 2019). This article has adopted the theory to explain the importance of resources, particularly capitation grants provided for implementing the fee-free secondary education Circular No. 5, with a view to improving students' educational facilities (URT, 2016; Kapinga, 2017). The article highlights the strategic nature of resources that are capable of providing a roadmap towards improvement. The relationship is that, improved educational facilities are resources that significantly foster superior performance by students.

However, the theory has been criticized as it generally treats resources and capabilities as interchangeable, while in development perspectives these terminologies have been adopted differently (Barney et al., 2021). Capabilities are regarded as human capital resources. Resources are stocks, supplied materials such as chemical elements, minerals, and aggregates or assets that are used as inputs for achieving various purposes (Berger et al., 2020). The theory assumptions have not provided a detailed organization of the types of resources (renewable and non-renewable) as important ingredients in development. Its main assumptions about resources being rare, immovable and non-substitutable are limited to explaining their specific performance in development. The theory is also limited in explaining the demand of resources for achieving development interventions: it is incapable of building reliable predictions on the values of using a particular resource to implement a development programme. This article addresses this gap by identifying capitation grants required to improve learning facilities as resources that are necessary to accommodate the increased number of students through the fee-free secondary education Circular No. 5. The article examines the utilization of capitation grants as resources required for renovating and constructing students' learning facilities for better performance.

3. Methodology

3.1 Study Area and Justification for its Selection

Geographically, Ukerewe is one of the seven districts that form Mwanza Region. Other districts include Ilemela, Nyamagana, Sengerema, Misungwi, Kwimba

and Magu. Ukerewe District is an island, which is surrounded by Lake Victoria. The district is located between Latitudes 2° 02′ and 45° 48″ S and Longitudes 33° 0′ and 35° 27″ E. It covers a total area of 6,400km^2; of which 640km^2 is dry land, and 5,760km^2 is covered with water. The district is about 45km (25 nautical miles) north of Mwanza City. To the east and north, the district borders Mara Region, to the west it borders Sengerema District, and to the south lies Magu District. Ukerewe District is divided into four divisions. These divisions include Ilangala, Mumbuga, Mumlamba and Ukara, which are further subdivided into 25 wards and 76 villages (URT, 1997; Katani, 2010). The National Census of 2012 showed that the district had a population of 345,147; of whom 169,279 were males, while 175,868 were females. The district has an average household size of 6, with a population density of 283.02/km^2 (URT, 2013). As Ukerewe District is an island, the majority of its people are self-employed in fishing. In addition, fishing has been a cultural activity that has attracted people, especially adult males and youths who start fishing during their childhood, leading them to drop out of school (Tandika, 2022). This is why the study was conducted in this area: to determine the effect of fee-free education on teenagers, especially their enrolment in secondary schools.

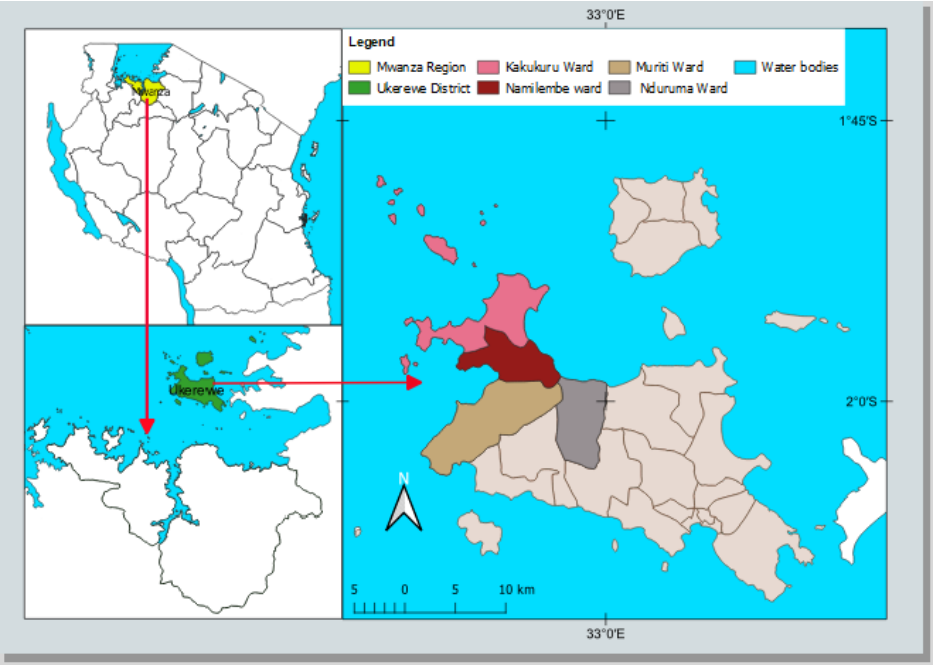

Figure 1: A Map of Ukerewe District Showing Location of Selected Secondary Schools

Source: Created by authors (2021)

3.2 Research Design

The study applied a cross-sectional research design to collect both qualitative and quantitative data, as a mixed approach. Data was captured at a single visit in each selected secondary school. The design was applied by conducting a survey to visit respondents in their respective secondary schools to probe information about utilization of capitation grants in relation to the research questions. As fee-free education is an on-going process in secondary schools, a cross-sectional design was a suitable approach to capture the current situation. As such, the rationale for using a cross-sectional research design was that its procedure enabled the collection of data from multiple variables in relation to the focus of the study. Hence, as mentioned earlier, respondents were visited once in their secondary schools.

3.3 Sample Frame and Sample Size

The sampling frame of this particular study included teachers from four selected secondary schools: Mibungo in Mibungo Village, Muriti in Itira Village Busangumungu in Busangamungu Village, and Nduruma in Makunu Village. Lists of teachers' names were provided in each school such that respondents were selected through simple random sampling. These lists were marked by skipping a single name until the actual sample size was completed. Secondary school teachers were the most important stakeholders as they were the ones that had been experiencing the direct impact of implementation of the fee-free secondary education Circular No. 5 (URT, 2018). As such, they understood the importance of renovating and building learning facilities for teaching given the increased number of students brought about by the fee-free secondary education programme.

In this article, the sample size was calculated by applying the formula developed by Cochran (1977) because it was suitable to determine the sample size from a small population of secondary school teachers. The formula is:

$$n = \frac{Z^2 pq}{e^2}$$

Where:

Z= the standard normal deviation, which is set at 1.96 as corresponding to 95% confidence level; e = the desired level of precision or degree of accuracy set at 0.093, p = the estimated proportion of an attribute, which is present in the population (signifies the percentage of the targeted population estimated to have a particular characteristic (if not known, 31% can be used); and q = 1-p.

Thus:

$n = 1.96^2 \times 31/100 \times 1\text{-}0.31/0.093^2$

$n = 3.8416 \times 0.31 \times 0.69/0.008649$

$n = 0.82171824/0.008649$

$n = 95.00731183$

Therefore, the sample size for this study was 96 respondents. Secondary school teachers in the selected schools were included in the sample size. The number was distributed equally to four secondary schools, whereas 24 respondents in each were selected. The sample size included those who were permanently employed and part-time co-teachers. These teachers were the stakeholders who understood issues concerning students' learning facilities and grasped their role in facilitating learning and teaching in schools. These respondents were selected using simple random sampling.

Purposive sampling was also used to select 18 key informants. These key informants included 2 ward executive officers (WECs), 2 village executive officers (VEOs), 4 heads of school (HoS), 4 ward education officers (WEOs), 1 district secondary education officer (DSEO), 1 district planning officer, and 4 parents/guardians (two males and two females). Ward and village executive officers were selected as leaders who oversaw development activities in their wards and villages. The ward and district secondary education officers were selected as stakeholders who supervised the implementation of the fee-free education Circular No. 5 at their administrative units. Heads of school were also selected as knowledgeable leaders to provide detailed information about educational facilities in their respective units. These also provided statistical evidence regarding educational facilities that were available before the provision of capitation grants and those which were renovated using capitation grants. Parents and guardians were also included as stakeholders who visited schools to assess their children's academic progress and attend meetings; whereby they were also capable of noticing any physical changes in the surroundings.

3.4 Data Collection Methods

The methods used for data collection included a survey, semi-structured interviews, non-participant observation, and documentary review. The survey used a questionnaire as a tool for collecting data from secondary school teachers. The survey included a series of activities, starting with the formulation of the topic and defining the respondents (teachers). Structured and semi-structured questions were developed and designed for respondents to fill in. The survey was done by visiting respondents in the secondary schools; and during the survey, each respondent was given a copy to fill in, in confidence. The survey was conducted during break time for the participant teachers while sitting in their offices. The survey was supported by non-participant observation by the researcher moving around the school environment to observe available structures and their conditions.

Semi-structured interviews were conducted for key informants based on individual experiences and understanding about the topic of the study. Checklists were developed and used as guides for conducting dialogue with each key informant, based on the kind of information required and the

respective position held by the informant. In addition, non-participant observation was done to ascertain the number of school buildings, and the condition of such buildings. This was done to determine whether such schools had managed to renovate old and build new learning facilities. The observation was followed by focus group discussions (FGDs) to brainstorm on the utilization of capitation grants in the studied secondary schools. Four (4) focus group discussions were formed, each comprising 6 members (teachers); making a total of 24 participants. These groups supplied information on how they perceived the utilization of capitation grants in their schools.

A documentary review was also carried out to collect secondary data from available documents. These included school reports of the implementation of the fee-free secondary education Circular No. 5, and documents showing allocation and utilization of capitation grants and budgets. School reports were reviewed to get the statistics of the school buildings that existed before the implementation of Circular No. 5, how the provision of the capitation grants was managed, and structures that were built subsequently.

3.5 Data Analysis and Presentation

Descriptive statistical analysis was carried out to determine available educational facilities that were constructed by utilizing capitation grants, as provided by the central government. Cross-tabulation was used to calculate frequencies and percentages of respondents' levels of education, their level of awareness about the receipt of capitation grants in their schools, separate educational facilities renovated before and after receipt of government funds, and the scarcity of educational facilities in these selected secondary schools. In addition, secondary data was analysed through content analysis by closely examining topics, ideas and patterns of texts of the study. Content analysis was done in five stages. The first stage involved the identification and sorting of qualitative data. The second stage coded this data into categories of related information to create coherence. The third stage involved organizing the coded data into a series of reports in their respective sections. The fourth stage was to interpret organized data. This stage involved synthesis of data to make sense in the light of the research specific objective and the research question. The fifth stage was to analyse the responses systematically by formulating meaningful explanation in the context of the aims of the study.

4. Findings and Discussion

4.1 Respondents' Education Level

The results presented in Table 1 show that 23.96% of the respondents held a Diploma in Education as professional secondary school teachers; those with a Bachelor's degree were 67.71%, while those with a Master's degree were 8.33%. This implied that the majority of secondary school teachers in Ukerewe District

were qualified teachers with a Bachelor's degree. This is an advantage given that the implementation of the fee-free secondary education Circular No. 5 advocated for competent teachers.

The teachers, as mentioned earlier, were key stakeholders for implementing government interventions aimed at providing fee-free secondary education in the country. This was the same thinking by the government (URT, 2016), which acknowledged that teachers are the key stakeholders for implementing the fee-free secondary Circular No. 5 since they are part of the primary implementers (URT, 2016). However, the presence of competent teachers is not sufficient to guarantee successful implementation of the fee-free secondary education circular: this should be complimented by other factors. Competent teachers need to be supported by improved students' educational facilities to ensure the provision of quality education and accommodation of the increased number of students. Insufficient educational facilities is one of the major factors responsible for teachers' turn-over in government schools. Due to this, many leave government schools to seek employment in private schools. So, supplying schools with sufficient educational facilities is most likely to motivate teachers to carry out their duties more effectively and raise students' morale to study harder.

Table 1: Education Levels of Respondents

Responses	Frequency	Percentage
Diploma	23	23.96
Bachelor degree	65	67.71
Master degree	8	8.33
Total	**96**	**100**

Source: Field Data, 2021

4.2 Available Students Educational Facilities in Selected Schools

Table 2 shows that classrooms that were available were 19 in Mibungo, 16 in Busangumungu, 18 in Muriti, and 15 in Nduruma. These classrooms were not enough to accommodate the increased number of students: the deficits were 16 classes in Mibungo, 11 in Busangumungu, 10 in Muriti, and 3 in Nduruma. The number of laboratories available were 3 in Mibungo, 2 in Busangumungu, 2 in Muriti, and 2 in Nduruma. Unfortunately, there were no libraries built in these secondary schools. Electricity was installed in all three schools with the exception of Nduruma Secondary School.

As already mentioned, students' educational facilities that were targeted for supporting the implementation of the fee-free secondary education as far as Circular No. 5 was concerned included classrooms, laboratories, libraries and electrical power supply. If such facilities are lacking, some students may quit school due to lack of support in learning. Moreover, the scarcity of such important educational facilities may force secondary school teachers to base

their teaching on pure theory. In this regard, the government will be placing a heavy burden on teachers by forcing them to struggle in their teaching with insufficient educational facilities.

Table 2: Available Students' Educational Facilities in Selected Schools

Educational facilities	Schools							
	Mibungo		Busangumugu		Muriti		Nduruma	
	Available	*Deficit*	*Available*	*Deficit*	*Available*	*Deficit*	*Available*	*Deficit*
Classrooms	19	16	16	11	18	10	15	03
Laboratories	03	-	02	01	02	01	02	01
Libraries	-	01	-	01	-	01	-	01
Electricity	Available		Available		Available		Not available	

Source: Field Data, 2021

4.2 Capitation Grants Allocated to Implement Fee-Free Education Circular No. 5

4.2.1 Allocation of Capitation Grants in Selected Secondary Schools

In order to find out how far the central government provided capitation grants, the study reviewed various reports. Data from these reports showed that, in the financial year 2016/17, the allocation of funds to the education sector increased to TZS4.768tr from TZS3.870tr allocated in 2015–16 (URT, 2018). Statistics show that there was an increase of TZS898bn, which was equal to 22% for expending in education (URT, 2018). The District Secondary Education Officer, as a key informant, testified this in the following comment:

> *The increase in the allocation of capitation grants was geared towards enabling the implementation of fee-free secondary education. The implementation of the fee-free secondary education Circular No. 5 of removing expenses that were previously paid by parents and guardians requires the central government to cover the needed amount* (District Secondary Education Officer, Ukerewe District, 17th May 2021).

This is similar to the reviewed statistics, which indicate that within five years, the sector allocation was increased from TZS2.283tr to TZS4.768tr at a rate of 100% (URT, 2018). During the interviews, respondents testified that funds were distributed to all public schools. In addition, heads of school were involved in collecting the funds from local governments. An observation of structures in the selected secondary schools showed that the capitation grants provided each year had not been sufficient to increase students' educational facilities. Heads of school, as key informants, informed that they utilized the grants to renovate only a limited number of facilities; and had to wait for another allocation during the forthcoming financial year.

Providing such occasional small amounts of capitation grants for supporting the implementation of the fee-free secondary education has not been a sustainable solution to improve educational facilities. The provision of small grants, distributed to various secondary schools, may not be the appropriate approach. As a result,

public secondary schools fail to achieve remarkable success. When heads of school receive a small amount of capitation grants it becomes difficult to launch big construction and renovation projects. Instead, they decide to spend these grants on purchasing teaching and learning materials for the ever increasing number of students. This study suggests that instead of spending such small grants regularly and yearly, the money should be accumulated until the amount becomes enough to renovate and build reasonable students' learning facilities. This will also stimulate the need for the government to design comprehensive strategies for generating resources to expend in renovating and constructing educational facilities in public secondary schools.

4.2.2 Respondents' Awareness on the Amount of Capitation Grants Allocated

Table 3 indicates the status of respondents' awareness on the allocation of capitation grants provided by the central government. The findings show that 95.83 % of the respondents were aware of the amount of capitation grants being allocated by the government for renovation of educational facilities, while 4.17% were not aware. However, teachers who were aware of the allocation of capitation grants were not sure about the exact amount provided and utilized. During the survey, respondents also testified that they did not make any close follow-up, and that they were neither involved fully in planning the renovation of structures as they devoted their whole time in teaching.

All key informants involved in this study were aware of the allocation of capitation grants from the central government. These key informants included two (2) ward executive officers (WEOs), two (2) village executive officers (VEOs), four (4) heads of school (HoS), four (4) ward education officers (WEOs), two (2) district secondary education officers (DSEO), and four (4) parents/ guardians (3 males and 3 females). The Head of Nduruma Secondary School gave the following information:

> *The school receives TZS 792,463.20 per month as capitation grant. The government, through the President's Office-Regional Administration and Local Government, provides this money. The capitation grants are used for the renovation and construction of classrooms, laboratories, libraries and installation of electricity* (Head of School, Ukerewe District, 11th May 2021).

In addition, the Ward Executive Officer in Namilembe Ward had the following to say:

> *On average, the construction of educational facilities is satisfactory. However, there is a need to involve more people to create awareness on the amount of capitation grants provided and expenditures incurred in various activities in the schools* (Ward Executive Officer, Ukerewe District, 17th May 2021).

Parents and guardians, as key informants, also lacked awareness about the capitation grants allocated to schools. URT (2015) also reported similar findings: that parents and guardians were not forthcoming in contributing towards the

needed resources, and that they were not interested in following-up on the use of the resources. In short, parents and guardians lacked the sense of ownership; before the fee-free programme, they were participating fully by contributing money and labour. However, they were now of the perception that the government was solely and fully responsible for providing education and learning facilities. During FGDs, participants testified that fee-free secondary education had given power to the heads of school to monitor, manage and get well informed about the amount of capitation grants allocated by the central government through the President's Office - Regional Administration and Local Government (PO-RALG). They explained that these funds were provided to increase the capacity in schools to accommodate the increased number of students enrolled through the fee-free secondary education Circular No. 5.

The process of expending capitation grants in secondary school is not well known by other stakeholders within selected communities. Teachers focus on teaching and assessing students, and do not concentrate on activities undertaken to improve learning facilities in their schools. Isolating teachers from setting priorities for utilizing capitation grants reduces efficiency in facilitating the renovation and construction of students' learning facilities. Teachers are not mere observers: they need to provide advice based on their expertise on the nature of structures suitable for educational facilities, to enhance teaching and learning.

Table 3: Respondents' Awareness about the Amount of Capitation Grants Allocated

Status	**Response**	
	Yes	**No**
	Frequency	***Percentage***
Being aware	92	95.83
Aware	4	4.17
Total	**96**	**100**

Source: Field Data, 2021

4.3 Educational Facilities Renovated through Utilization of Capitation Grants

4.3.1 Classrooms

The findings of this study show that from the year 2018 to 2020, about 15 classrooms were renovated in the four selected schools (Table 4). The distribution of classrooms in the secondary schools includes four (4) in Mibungo, eight (8) in Busangumungu, two (2) in Muriti and one (1) in Nduruma. The number of renovated facilities was not enough to accommodate students; so the District Secondary Education Officer suggested that there was a need to resume the previous practice of parents and guardians contributing towards building educational facilities in secondary schools.

HakiElimu (2018) reported that 51.3% of parents and guardians believed that fee-free secondary education exonerated them from contributing towards increasing educational facilities. In the same year, URT (2018) reported that 37% of increased enrolment had led to larger class sizes and higher teacher-student ratios than the mandated ratio of 1:40, which compromised teachers' motivation in teaching. Statistically, implementation of the fee-free education circular seems to be inconsequential in promoting quality education. Therefore, practical efforts are needed from the government, in collaboration with stakeholders, to address the problem. The following comments came from one of the parents in Itira Village:

> *For the last three years, from 2018 to 2020, there was one classroom built at the school while parents believed that fee-free secondary education covered all costs including funds for construction of classrooms* (Student's Parent, Ukerewe District, 13th May 2021).

In addition, the Village Executive Officer in Muriti Village gave the following comment:

> *Since the introduction of the fee-free secondary education, parents have been reluctant to contribute funds for the construction of new classrooms, laboratories, libraries and installation of electric power* (VEO, Ukerewe District, 15th May 2021).

The Ward Executive Officer in Kakukuru Ward gave the following clarification:

> *Parents and guardians initially did construction of classrooms during the introduction of community public secondary schools. Parents and guardians had committed themselves to construct classrooms, in the past, but after the re-introduction of the fee-free education, they became reluctant and depended entirely on the government* (WEO, Ukerewe District, 7th May 2021).

The deficit of classrooms, as shown in Table 4, indicates the need of seeking more funds to increase the speed of constructing and renovating students' educational facilities.

Table 4: Classrooms Renovated through Utilization of Capitation Grants

	Mibungo	Busangumungu	Muriti	Nduruma	Total
Number of classrooms renovated from 2018 to 2020 through capitation grants	4	8	2	1	15

Source: Field Data, 2021

However, Mibungo and Busangumungu secondary schools were the only ones that had received support for constructing classrooms from the community. The Mibungo VEO testified this as he said: "It was very interesting to see parents and guardians collecting sand, stones and making bricks." The

Head of Mibungo Secondary School also explained that the government had allocated a small amount of funds for constructing classrooms:

> *Bad enough, there were small government capitation grants allocated for constructing classrooms, but the school received work force for the construction of educational facilities, including classrooms* (Head of School, Ukerewe District, 10th May 2021).

Contributions from parents and guardians towards the construction and renovation of classes are very important to accelerate school development. Education expenses, e.g., school fees, can be abolished but not the contribution of resources and labour from parents and guardians. In particular, the contribution of labour force from parents or guardians is likely to supplement efforts of building and renovating educational facilities.

4.3.2 Laboratories

The findings indicate that there were neither laboratories built nor renovated during the implementation of the fee-free secondary education. During the survey, respondents were concerned about the difficulty they were facing to teach science subjects because they could not conduct practical sessions effectively. Even for secondary schools with laboratories, the apparatuses were not sufficient to meet the needs of students. This is similar to what Kinyota (2020), that: "… many secondary schools lack science laboratories." Experiments had to be done in groups, with most of the students only watching and not participating practically. This led to poor academic performance in science subjects.

4.3.3 Libraries

The findings show that renovation of classrooms had been given higher priority than other facilities, for instance, libraries. The findings indicate that there were neither new libraries nor old ones renovated in the selected secondary schools that were built before or after the provision of capitation grants. For example, Mibungo Secondary School used a classroom as a library. However, this classrooms was not big enough, and some of the books were poorly kept. Moreover, there were no enough tables and chairs for readers. Also, there was no librarian to attend students and teachers who required library services. Nkebukwa and Luambano (2018) had similarly noted that most public secondary schools lacked libraries; and the few with them lacked qualified librarians to assist students to access academic materials. Respondents explained that the failure to access library materials limited students' access to supplementary information to add to what they had learnt in class; in addition to skills in discovering information sources to improve their study skills.

4.3.4 Electricity Installations

The findings show that since the implementation of the fee-free secondary education Circular No. 5, there have been no new electric installations carried out. This implies that the possible link between the circular and the lack of new electrical installations, which may require further investigation. Other selected secondary schools had electricity before implementation of the circular with the exception of Nduruma Secondary School. These installations had been done before the introduction of the fee-free secondary education Circular No. 5. These secondary schools enjoy power supply services from the Tanzania Electric Supply Company Limited (TANESCO) as a regular supplier in the country. However, during the focus group discussions, participants complained that although some secondary schools had electricity, they experienced frequent power outages during learning sessions. Constant power cuts reduce students' exposure to and use of Information Communication Technology (ICT) for learning. Schools need a reliable supply of electricity so that through technology they are exposed to the outside world and get access to a variety of information that would expose them to the global educational system.

4.4 Relationship between the Number of Classrooms and Students

To determine the relationship between the number of classrooms and the number of students in the four selected schools, the ratio of 1:40 (representing one classroom per 40 students) was applied (MoEVT, 2007). The findings shows that the number of students in the sampled secondary schools was 1:70 in Mibungo Secondary School, 1:50 in Busangumungu Secondary School, 1:65 in Muriti Secondary School and 1:60 in Nduruma Secondary School. This shows that there was a deficit of classrooms in each selected school as the number of students exceeded the acceptable ratio of 1:40 for one stream. One WEO from Kakukuru, described the situation thus:

> *Since the implementation of the fee-free secondary education, there has been an increase in the number of students enrolled from a close ward that had no secondary school, and no new classrooms constructed* (Ward Executive Officer in Ukerewe District on 07th May 2021).

HakiElimu (2017) confirmed that not only was there a deficit of classrooms to accommodate teachers and students, but also some of the classrooms observed were in a poor condition and lacked important furniture such as chairs and tables. This implies that improving educational facilities including classrooms can help to improve the teaching and learning process and raise students' academic performances. Observation based on the ratio 1:40 revealed that, among the selected schools, none had enough classrooms; Mibungo Secondary School had a deficit of 16 classrooms, Muriti Secondary School had a deficit of 11 classrooms, Nduruma Secondary School had a deficit of 10 classrooms and Busangamungu Secondary School had a deficit of 03 classrooms.

When students undertake their studies under such conditions, it is difficult to perform well. This also affected the sitting arrangement and students were congested. As a result they were unable to concentrate on lessons taught. Teachers applied extra effort to manage students during the teaching process. It should be appreciated that the classroom is not only a place for learning, it also functions as a shelter for students. For instance, during the rainy season classrooms are shelter to students. Therefore, the government should consider construction of new classrooms to address all the problems that have been raised in this article.

5. Conclusion and Recommendations

According to the findings, the Resource-Based Theory correlates with the need to improve students' educational facilities, as assets, to ensure provision of quality education in secondary schools. The first assumption denotes that resources are rare and difficult to acquire. This relates with the findings in this article as capitation grants as resources for improving students' learning facilities were rare and insufficient to meet the desired standards. Only 15 classrooms were renovated between 2018 and 2020, in four selected secondary schools through utilization of capitation grants. The study established that there was a scarcity of educational facilities such as classrooms and laboratories in the studied secondary schools although the government had invested in renovations. In addition, none of the selected schools had a library and one of them did not have electricity. The study concludes that, capitation grants, as resources provided for building and renovating educational facilities, were not sufficient to handle the increased number of students as a result of the fee-free secondary education Circular No. 5.

The government should invite the community to mobilize resources and construct new secondary school educational facilities, and alongside, renovate existing structures. During the construction of classrooms, laboratories and libraries, community members should participate effectively by delivering sand, stones and making bricks. Moreover, public schools need to launch various programmes and projects as self-reliance initiatives for generating income that will be invested on constructing and renovating students' educational facilities. In addition, the government should formulate specific policies and circulars for guiding the process of building and renovating students' learning facilities to achieve quality education in public schools.

References

Adarkwah, M. A. (2021). I'm not against online teaching, but what about us? ICT in Ghana post Covid-19. *Education and Information Technologies*, 26(2): 1665–1685.

Barney, J. B., Ketchen Jr, D. J. & Wright, M. (2021). Resource-based theory and the value creation framework. *Journal of Management*, 47(7): 1936–1955.

Berger, M., Sonderegger, T., Alvarenga, R., Bach, V., Cimprich, A., Dewulf, J., ... & Young, S. B. (2020). Mineral resources in life cycle impact assessment: Part II–recommendations on application-dependent use of existing methods and on future method development needs. *The International Journal of Life Cycle Assessment*, 25(4): 798–813.

Bhasin, H. (2020). Resource based view/theory. Types and assumption. Marketing 91. [Http: //www.marketing 91.com/resource-based-view/], site visited on 19th September, 2021.

Bonsu, O. (2021). The impact of tuition-free policies on schooling and child labour incidence in Ghana. Doctoral Dissertation, University of Lethbridge, Canada.

Ekundayo, O. S. (2018). The right to free and compulsory primary education in Ghana: Lessons for other African countries. *JL Pol'y & Globalization*, 69*:* 105.

Godda, H. (2018). Free secondary education and the changing roles of the heads of public schools in Tanzania: Are they ready for new responsibilities? *Open Journal of Social Sciences*, 6(5): 1–23.

HakiElimu. (2017). The impact of the implementation of fee-free education policy on basic education in Tanzania: A qualitative study. HakiElimu, Dar es Salaam.

HakiElimu. (2018). HakiElimu Annual Report. HakiElimu, Tanzania.

Lyanga, A. A. & Chen, M. (2020). The impacts of fee-free education policy in Junior Secondary Schools in Tanzania. *AJESS*, 13(3): 36–47.

Kapinga, O. (2017). Assessment of school facilities and resources in the context of fee-free basic education in Tanzania. *International Journal of Education and Research*, 5(6): 93–102.

Katani, J .Z. (2010). The role of multiple institutions in the management of micro-spring forests in Ukerewe, Tanzania. Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy. Wegeningen University, Netherlands.

Kim, J., Robinson, N., Härmä, J., Jeffery, D., Rose, P. & Woldehanna, T. (2022). Misalignment of policy priorities and financing for early childhood education: Evidence from Ethiopia, Liberia, and Mainland Tanzania. *International Journal of Educational Research*, 111*:* 101891.

Kinyota, M. (2020). The status of and challenges facing secondary science teaching in Tanzania: A focus on inquiry-based science teaching and the nature of science. *International Journal of Science Education*, 42(13): 2126–2144.

Kraaijenbrink, J., Spender, J. & Groen, A. (2010). *The resource-based view: A review and assessment of its critiques*. Munich: Munich Personal RePEc Archive.

Magogwa, D. A. (2021). School committees' capability on effective financial management in public primary schools in Musoma Municipal Council, Tanzania. Doctoral Dissertation, University of Dodoma.

Mashala, Y. L. (2019). The impact of the implementation of free education policy on secondary education in Tanzania. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 3(1): 6–14.

MoEVT. (2007). *Curriculum for ordinary level secondary education in Tanzania*. Dar es Salaam, Tanzania. Tanzania Institute of Education.

Ndibalema, P. (2019). Making sense of basic education statistics in Tanzania: Emerging issues and implications for future practice. *International Journal of Elementary Education*, 8(1): 26.

Ngware, M., Onsomu, E., Kiriga, B. & Muthaka, D. (2017). *Free secondary education in Kenya: Costs, financing sources and implications*. Kenya Institute for Public Policy.

Nkebukwa, L. & Luambano, I. (2018). Collaborative information seeking behaviour of student groups in vocational education training institutions in Zanzibar. *University of Dar es Salaam Library Journal*, 13(1): 103–116.

Orodho, J. A. (2014). Policies on free primary and secondary education in East Africa: Are Kenya and Tanzania on course to attain Education for All (EFA) Goals by 2015. *Journal of Humanities and Social Sciences (IOSR-JHSS)*, 19(1): 11–20.

Shukia, R. (2020). Fee-free basic education policy implementation in Tanzania: A 'phenomenon' worth rethinking. *Huria: Journal of the Open University of Tanzania*, 27(1).

Tandika, P. B. (2022). Instructional materials and the development of young children's 21st Century skills: Perspectives from early educators in Ukerewe, Tanzania. *Journal of Research in Childhood Education*, 36(1): 31–45.

Uhm, C. H., Sung, C. S. & Park, J. Y. (2018). Understanding the accelerator from resources-based perspective. *Asia Pacific Journal of Innovation and Entrepreneurship,* 12(3): 258–278.

UNESCO (2018). *Gender and education for all-the leap to equality*: Global Monitoring Report.

United Republic of Tanzania (URT). (1997). Implementation of agenda 21: Review of progress made since the United Nations Conference on Environment and Development, 1992. Dar es Salaam, Tanzania.

URT. (2015). *Circular No.* 5 *of* 2015" Abolishes fee and other direct cost for basis secondary school. Dar es Salaam: MoEST, 21 November 2015.

URT. (2016). *Circular No.* 3 *of* 2016. *For implementation of fee-free primary school education,* MoEST London: University Press.

URT. (2018). *Pre-primary, primary, secondary, adult and non-formal education statistics*. Dodoma: President's Office, Regional and Administration and Local Government.

Ustun, U. & Eryilmaz, A. (2018). Analysis of Finnish education system to question the reasons behind Finnish success in PISA. *Online Submission*, 2(2): 93–114.