Assessing the Availability and Utilisation of Educational Resources in Public Secondary Schools in Singida Municipality, Tanzania

John Shumbi¹ Karoli John Mrema² Email: <u>johnshumbi@yahoo.com</u>¹ The Open University of Tanzania

ABSTRACT

This study investigated the availability and utilisation of educational resources in public secondary schools in Singida municipality. The descriptive survey research design was used for the study. The study involved 336 students who were randomly selected and 42 teachers who were purposively chosen from public secondary schools. The instruments used for the study were questionnaires, interview checklists, observations, and document reviews. The study found that some educational resources like computers, projectors, and bulletin boards were unavailable in most of the secondary schools visited. Also, the study findings indicated that educational resources were inadequate. Furthermore, the study findings revealed that the utilisation of educational resources is at a low level. The study concludes that some educational resources were not available in public secondary schools, and the available resources were not adequate and were not being utilised perfectly. Among others, the study recommends that the government should ensure access to educational resources in schools, capitation grants provided per student should be raised, and ensure effective utilisation of the available resources.

Keywords: Availability, educational resources, physical resources, public schools, and utilisation

INTRODUCTION

This study is focused on assessing the availability and utilisation of educational resources in public secondary schools in Singida Municipality. Education is a powerful driver of development and one of the most powerful tools for poverty eradication, health improvement, gender equality, peace, and stability (World Bank, 2021). Education fosters economic growth and improves people's lives in various ways, including boosting labour force efficiency, an individual's earning potential, and strengthening democracy (Barro, 1999). According to Sakmurzaeva (2018), no matter whether it is a developing or developed country, its socio-economic development is greatly influenced by its educational system. The country's development is not possible in the true sense unless people's education is given priority. By recognising the role of education, various governments and non-government organisations have been investing a lot of capital in addressing infrastructural challenges in educational institutions.

It should be noted that educational investment is an attractive opportunity for investment in today's world – both privately and socially (Psacharopoulos, 1994). In 2020, the World Bank Group (WBG), which is the main sponsor of education in developing countries, provided \$5.2 billion for education initiatives, technical support, and other projects aimed at improving learning and ensuring that everyone has access to the education they need (World Bank Group, 2021). Sub-Saharan African countries also recognize the importance of basic education for economic and social development. All have agreed to the Dakar World Education framework and universal educational goals (UNESCO, 2000). In the case of Tanzania, the situation is much the same as in other countries in the world. Since 1960s, after independence of Tanganyika and Zanzibar (later they

formed Tanzania), there have been various efforts to ensure that the education provided to Tanzanians is of quality and meets the needs of society. For instance, since independence, curriculum reforms have been made four times. These reforms include the 1967 curriculum reform, the 1979 curriculum reform, the 1997 curriculum reform, and the 2005 curriculum reform (Nzima, 2016; TIE, 2013). These changes have been fuelled by various factors, such as changes in national policy and international implications such as the Millennium Development Goals (MDGs) and the Education for All (EFA). These curriculum improvements and policy changes have successfully raised the number of enrolled students, the number of educational institutions, the number of educational infrastructures, the number of professionals in various fields, and finally reduced illiteracy. The current state of education is not the same as in the 1960s.

For example, currently the number of scholars in different cadres, including teachers, has increased. With regard to primary and secondary schools, the number has grown significantly in almost every village and every ward respectively. Universities have also increased considerably compared to the number of universities existed when Tanganyika and Zanzibar gained their independence. Changes in curriculum and the government's policies have been the driving forces for the growth of education in the country. For example, in implementing "The Primary Education Development Plan" (PEDP) in January 2002, all fees in primary schools were eliminated. This enabled more students to be enrolled in primary schools (Hoogeveen & Rossi, 2013). On the other hand, education development has been accompanied by a growing need for more investment in education infrastructure. The availability and utilisation of educational resources are related to perceived students' learning outcomes in educational institutions (Ibukun, Akinfolarin, & Alimi 2011). Students' learning outcomes in schools primarily depend on the availability and appropriate administration of resources (Neill, 2001). School facilities such as classrooms, laboratories, libraries, furniture, latrines, human and financial resources are essential in ensuring effective teaching and learning activities. All human, financial, physical, nonphysical, audiovisual, educational institutions' environments and community materials available in an academic setting have to be employed in the educational process to achieve particular goals (Usman, 2016). Although there has been a large increase in the number of public secondary schools and the number of students enrolled in primary and secondary schools; yet, students' performance is low (Brandt & Mkenda, 2020). Various studies have linked the declining performance and quality of education with teacher's motivations (salaries/other incentives) and the availability of human, financial and material resources (Kaya, 2016; Mkalagale, 2013; Sifuna, 2007). Nevertheless, very few have focused on the utilisation of available resources. Although certain facilities may be available and sufficient, but teachers and students may not use them effectively. This study, therefore, filled the gap; it assessed the availability and utilisation of educational resources. Specifically, the study:

- 1. Assessed the availability and adequacy of educational resources using the minimum quality criteria for teaching and learning in secondary schools.
- 2. Examined the degree to which teachers and students utilized the available educational resources.

Literature Review

Theoretical Literature Review

This study was underpinned by the System Resource Theory on Organisational Effectiveness, suggested by <u>Yuchtman and Seashore</u> (1967). This theory looks at the effectiveness of an organisation as the bargaining power; it suggests that effectiveness of an organisation is an organisation's ability to exploit its surroundings in the acquisition of valuable resources, in either absolute or relative terms. The theory emphasizes that an organisation's overall capabilities as a resourcegetting system are concerned with the number of resources it provides to its relevant environment. In schools, like any other organisation, their effectiveness is measured in terms of their ability to acquire resources and use them to achieve their objectives. Yutchman and Seashore (1967) also emphasized that resources are essential for the company's efficacy. Furthermore, they viewed an organisation as an open system that focuses on how internal processes mediate the relationships between inputs and outputs. Hence, the system resource theory of organisational effectiveness is highly relevant to this study because it explains the schools' interaction with their environment in the acquisition of scarce educational facilities.

Empirical Literature Review on the availability of Educational Resources

Experience from outside Tanzania

According to <u>Sifuna and Sawamura (2010)</u>, most policymakers in developing countries focused on school access and enrolment during the 1970s and 1980s. An increase of the number of students enrolled in primary schools led to an increase in the number of students in secondary schools. In one way or another, this increase of students' number led to a shortage of educational resources, especially in developing countries. Thus, it became apparent that simply going to school was not enough to assure a decent level of fundamental education. Governments and other stakeholders noted that an increased number of enrolled students alone is not enough; the quality of education provided to the learners is also essential. The World Conference on Education for All, held in Jomtien, Thailand in 1990,

and the World Education Forum, held in Dakar, Senegal in 2000, reflected a growing concern regarding the quality of education (Rao, 2003; Windham, 1992). Pareek (2019) researched the availability and utilisation of a science laboratory for science teaching and learning at secondary level in India. In this study, they found no science laboratories in most schools involved in the study. Many teachers had difficulty in conducting practical activities due to overcrowded classrooms and insufficient equipment and materials. Based on the study's findings, the study noted that it is crucial that laboratories have the necessary equipment and thus insisted the government, in collaboration with other education stakeholders, to ensure that laboratory equipment is available in schools. Obidile and Obi (2020) assessed the adequacy, availability, and extent of utilisation of teaching materials in the delivery of business education in secondary schools in Anambra State, Nigeria.

The study revealed that secondary schools lacked the necessary instructional materials to teach business studies. There was also a lack of adequate instructional materials and a low utilisation level. The study recommended that the government and donors should assist public secondary schools and make instructional materials available and adequate for successful teaching and learning of business studies. In the Nyamasheke district, Rwanda, <u>Harindintwari</u>, <u>Veraeli</u>, and <u>Ogondiek</u> (2020) studied the impact of educational resources availability and educational resources utilisation in implementing the competence-based curriculum. The study revealed insufficient physical and educational resources in nine years of primary education. They argued that school materials availability and utilisation are critical in every country's education system for students to gain new knowledge, skills, attitudes, and values.

State of Educational Resources in Tanzania

In Zanzibar, <u>Masoud (2012)</u> examined the availability and utilisation of educational materials, as well as the competence of teachers in the Urban West district. The study revealed poor distribution, accessibility, availability, and utilisation of educational resources. Teachers in these schools were incompetent; this resulted into poor academic performance of students. Based on the study's findings, it was recommended that the government's education budget be increased to provide sufficient teaching and learning materials to public secondary schools in Urban West, Zanzibar. Kapinga (2017) discussed the core aspects of quality in education in Tanzania. He used proxy indicators such as pupil-teacher ratios and pupil-book ratios. He found insufficient number of textbooks, reference books, maps, and globes in Tanzanian public schools due to the increase in the number of students.

Further, he reported that most public schools in Tanzania had a shortage of facilities like classrooms, desks, and chairs; the available classrooms were found to be poorly constructed with insufficient space. Based on the findings, it is suggested that curriculum developers (the Tanzania Institute of Education) should collaborate with policymakers to develop a policy guideline that will improve the provision of instructional materials and physical facilities (Sephania, et al. 2017). Chipana (2018) conducted a case study to explore the influence of library resource utilisation on secondary school students' academic performance in Tanzania. He revealed that the few existing school libraries were insufficient to facilitate effective student learning. The condition of these school libraries was poor in terms of space for books and library users. The study concluded that inadequate seating facilities, shortage of qualified librarians, and shortage of up-to-date reading resources were among the issues faced by the school libraries.

Malekani (2018) conducted a study on ICTs access, use, and challenges in Secondary Schools in Tanzanian. The study revealed that the status of ICTs in secondary schools was poor. Further, schools did not have enough ICT facilities, and even those available were underutilised. Based on the study, it was suggested that, deliberate efforts needed to be taken to overcome the existing issues so as to effectively introduce and utilize these emerging technologies.

Synthesis and Knowledge Gap from the Literature

Various studies explain the existing relationship between educational resources' availability and utilisation with effectiveness of educational organisations and students' performance. They point out that educational resources such as classrooms, libraries, latrines, furniture, and teaching and learning materials are essential tools for improving education quality and students' performance. Further, various studies have been conducted in this area and have highlighted the importance of the availability and effective utilisation of educational resources. They have described the relationship between educational resources' availability and utilisation with student performance. Their findings have highlighted various challenges related to availability and utilisation of educational facilities. Very few studies examined this topic in Tanzania (Malekani, 2018; Masoud, 2012); none of them has researched on the availability and utilisation of educational resources in general, in secondary schools. Therefore, this study sought to fill that gap; it assessed the availability and utilisation of physical, financial and human resources.

Methodology

A mixed-methods research approach was employed in this study. In the mixed-methods research, both qualitative and quantitative aspects are used. The research was carried out in Singida Municipality, Singida region. The target population was 11,845 (370 teachers and 11,475 students) from 18 public secondary schools. Simple random and purposive sampling techniques were used to sample schools, teachers, and students. With simple random sampling (balloting without replacement), fourteen public secondary schools were selected. Based on Krejcie and Morgan's Table, 378 respondents were selected (336 students and 14 academic teachers, 14 deputy heads of schools, and 14 heads of schools). Simple random sampling was used to select 336 students, and purposive sampling was used to obtain the remained participants. Heads of schools, deputy heads of schools, and academic teachers were purposively chosen because they were believed to be familiar with the availability and utilisation of all the educational resources in their schools. Data were collected through questionnaires, interviews, observation, and documentary review.

Ouestionnaires were used to collect information from students and teachers. After a short introduction from the researcher, teachers and students were given the questionnaires to fill out. The study also employed a face-to-face interview technique, in which the researcher personally asked questions to the heads of school. Education statistics ledger from the district education officer, student registration book, teachers' roster, and teachers' workload from the office of the heads of schools were among the documents examined. The instruments were validated by consulting research experts and peer group members. Validity was further maintained by using triangulation in the data collection process. Cronbach Alpha statistics were used to test the reliability of the instruments. The reliability correlation coefficient of 0.859 was obtained. A 100% return rate was recorded after the administration of the questionnaires. The data were computed using Statistical Package for Social Sciences (SPSS). In adhering to ethical issues, the researcher sought permission from Singida District Executive Director (DED) to collect data from the target population.

Furthermore, the researcher enrolled participants in the study based on their own voluntary informed consent. In addition, the issues of privacy, confidentiality, and anonymity of the involved participants were considered.

Findings and Discussion

This article determines the adequacy and utilisation of the available educational resources. The study focused on three categories of educational resources, which are financial, human, and physical/material resources.

Availability and Adequacy of Educational Resources

Availability and Adequacy of Financial Resources

In assessing the availability and adequacy of financial resources, semistructured interviews were used in a conversation with the heads of schools. The researcher asked about the availability, adequacy and sources of financial resources. All heads of schools admitted to receiving capitation grant from the government; it is the main source of schools' income, which is provided based on the number of students. However, they noted that the provided funds were not adequate to meet the needs of the school.

One of the heads of schools noted:

Our budgets for school operations are heavily dependent on government capitation grant provided per student. The government has been providing monthly grants for twelve months of the year, despite the availability of these grants but the running of the school is still challenging due to the fact that the capitation grant given does not meet the needs of the school. It has been difficult to buy teaching and

learning material due to insufficient grants. (Interview with the head of school, 2022).

As seen in the data, capitation grant is the main source of school funds, it is not sufficient. Due to insufficiency of funds, schools failed to purchase sufficient teaching and learning materials. Since financial resources are used to carry out the business's main operations like purchasing goods and services and making a long-term investment (EconomicPoint, n.d.), the school, like any other business-oriented institutions, needs financial resources to run itself. Shortage of this was found to be a threat to the quality of education since the quality of education would be determined by educational resources; whereas all those resources depend on the presence of financial resources. These findings align with the reports of several researchers that examined the availability and adequacy of funds in public secondary schools in Tanzania (Kassim, 2021; Mndeme, 2020; Munisi et al., 2021). All of them have noted that the allocated fund in public secondary schools was insufficient. Therefore, they recommended that the government should revise the budget allocated per student.

Availability and Adequacy of Teachers

Table 1: Teachers' availability in Singida Municipality

Subject	Frequency/Percent	Teachers	Teachers	Teachers	
Subject	Trequency/Tercent	required	available	deficiency	
Science	Frequency	208	113	95	
teachers	percent %	40.3	21.9	18.4	
Arts	Freauencv	308	257	51	
teachers	percent %	59.7	49.8	9.9	
Total	Frequency	516	370	146	
	percent %	100	71.7	28.3	

Source: Singida Municipal Secondary Education Statistical Ledger (2022)

The study also assessed teachers' availability as one of the key educational resources. The findings indicate that there is a shortage of teachers in public secondary schools. It was found that the number of teachers available did not match the needs of those schools. It was noted that the situation was even worse for science subject teachers. In the schools visited, none of the schools had adequate teachers. The data revealed that Singida Municipality had a deficit of 146 teachers, which is equivalent to 28.3% of the required teachers. During interviews with the heads of schools, they all noted that teachers were available but not adequate to meet the needs. For instance, one of the heads of schools stated:

To some extent, I would dare to say that the government's efforts are promising on the issue of teachers' availability compared to previous years. Despite these compliments but the challenge of teachers' shortage still exists. The number of the available teachers does not match the school's needs. There has been an increase of the number of students enrolled in secondary schools, while the number of teachers remained the same or even declining. (Semi-structured interview with head of school, 2022).

This suggests that the shortage of teachers in secondary schools is still huge and need to be given priority in addressing it. From these results, it is clear that the government and other education stakeholders should take deliberate steps to address this problem since the quality of education depends mainly on the presence of competent teachers. These findings are in line with those reported by other scholars (King, 2013; Lawrent, 2020; Munisi et al., 2021). All these scholars have found deficit of teachers, particularly science teachers, in public secondary schools. This negatively impacted the

students' academic success and achievement. The System Resource Theory used in this study emphasises that an organisation's overall capabilities, as a resource-getting system, are concerned with the number of resources it provides to its relevant environment. On this basis, the adequacy of teachers in schools is a critical issue in strengthening the capacity of educational institutions so as to provide education that meets the expectations of the clients. Thus, for effective teaching and learning, adequate teachers are needed to facilitate the entire teaching and learning process.

Availability and Adequacy of Educational Physical Resources

The educational physical resources assessed in this study include library chairs, tables, projectors, computers, printing machines, duplicating machines, display boards, bulletin boards, whiteboards, charts, maps, models, pictures, and globs. The results show that physical educational resources were inadequate and some resources like computers, projectors, display boards, bulletin boards, and whiteboards were not available at all. Of all the physical education facilities investigated, chalkboards, offices, and classrooms were adequate in most of the schools. It was found that all other physical education facilities were inadequate in the schools visited. The table below summarises the data from teachers and students.

Table 2: Availability of Physical Resources

		Variable description			S/N	Variable	Variable description		
S/N	Variabl e	Suffici ent	Short	Not Availa ble			Sufficient	Short	Not Available
1	Classro oms	61%	39%	0%	14	Chalkboar d	79%	21%	0%
2	Librarie s	19%	67%	14%	15	Whiteboar d	0%	10%	90%
3	Lab & lab	22%	65%	13%	16	Bull. Board	4%	16%	80%
4	Latrines	32%	68%	0%	17	Display Board	16%	43%	41%
5	Offices	56%	41%	3%	18	Charts	13%	68%	19%
6	Student' s table	36%	64%	0%	19	Models	18%	73%	9%
7	Student' s chairs	36%	64%	0%	20	Maps	13%	73%	14%
8	Office	43%	57%	0%	21	Projectors	5%	25%	70%
9	Office	40%	60%	0%	22	Computers	2%	49%	49%
10	Lab.	28%	61%	11%	23	Printers	7%	69%	24%
11	Lab.	19%	59%	22%	24	Globs	13%	68%	19%
12	Lib. tables	16%	54%	30%	25	Pictures	10%	71%	19%
13	Lib. chairs	14%	58%	28%	26	Duplicatin g machine.	10%	61%	29%
AVERAGE OF VARIABLE DESCRIPTIONS						IONS	24%	54%	22%

Source: Field data (2022)

As seen from the data, generally, the findings show that educational physical resources in secondary schools were inadequate. Since it was obvious that schools endowed with more resources perform better than schools that are less endowed (Adeogun, 2001), one would argue that the performance of public secondary schools was likely to be affected by inadequate educational resources. The findings of this

study are conquer with those obtained by Naisiyaki et al., (2017), Sephania et al., (2017), Victorini and Wambiya (2016) and Mgaya (2021) who found that most public secondary schools had inadequate physical facilities for class work. Hence, this was an obstacle to the implementation of the curriculum. This study was guided by the System Resource Theory of organisational effectiveness, which emphasizes that an organisation's overall capabilities as a resourcegetting system are concerned with the number of resources to its relevant environment. It is argued here that the adequacy of educational resources, such as financial, human, and material resources, plays an essential role in the effectiveness of teaching and learning. Therefore, the researcher urges the government to see how it can improve the grants provided to schools based on the number of government students. The should expand investments infrastructure and equipment to meet the demand.

Utilisation of Educational Resources in Secondary Schools

Utilisation of Teachers

Data on the utilisation of teachers were gathered from documentary review of teachers' workload per week and the Pupil/Student-Teacher Ratio (PTR) retrieved from heads of schools. <u>Figure 1</u> presents teachers' workload and PTRs.

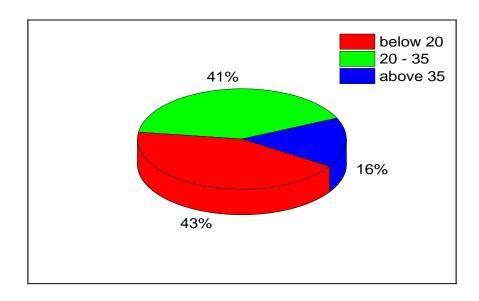


Figure 1: Distribution of Teachers' Workload

Source: Field data (2022)

The findings of this study show that workload is still not as per Secondary Education Development Plan (SEDP)'s targets. One of the SEDP's targets was to optimize the utilisation of teachers and teaching load at 30 periods per week (URT, 2004). Contrary to the SEDP'S targets, results in Figure 1 show that sixteen 16% of the teachers had more than 35 periods (class sessions) per week. This was due to the large number of students as compared to available teachers. The data indicate that 41% of the teachers had between 20 and 35 class sessions per week. This is considered as optimum class sessions as it is within the range of the 30 periods suggested by SEDP. It is also noted that 43% of the teachers had below 20 class sessions per week. This is arguably the result of large number of teachers in a particular subject in a school. Based on the study findings, one would argue that teachers were not well utilised. For this reason, the effectiveness of teaching and learning activities in schools was probably affected. It

should be noted that, on one hand, overloading teachers with a large number of class sessions affects students' performance (Chirimi, 2016). On the other hand, teachers having significantly fewer periods per week is a misuse of the few resources available.

Table 3: Government-owned Schools and Pupil-Teacher Ratio (PTR) (2016-2021)

YEAR/ITERM	2016	2017	2018	2019	2020	2021
Schools	3,614	3,604	3,632	3,742	3,863	3,873
Students	469,589	1,565,201	1,814,686	2,023,205	2,172,257	2,379,945
Teachers	89,554	89,475	82,023	84,106	84,614	87,621
PTR	16	17	22	24	26	27

Source: <u>URT (2020)</u>

Table 4: Student-teacher Ratio (PTR) – Singida Municipality

School	Students	Teachers	PTR
School 1	1011	30	34
School 2	431	18	24
School 3	406	19	21
School 4	774	22	35
School 5	951	25	38
School 6	651	20	33
School 7	513	13	39
School 8	766	17	45
School 9	376	13	29
School 10	1079	25	43
School 11	612	22	28
School 12	389	13	30
School 13	749	28	27
School 14	646	20	32
AVERAGE	668	20	33

Source: Field data (2022)

On the aspect of student-teacher ratio, the data show that, national wise, there has been a significant increase in PTR. The data shows that the ration worsened from 1:16 in 2016 to 1:27 in 2021 (Table 3). The data from the schools visited in Singida Municipality in 2022 have shown a ratio of 1:33 ratio of students to teachers. The government, through Secondary Education Development Plan (SEDP), set a target that by the year 2009 the pupil-teacher ratio should be 1:30 (URT, 2004). Based on the current findings, it is clear that the said target has not yet been achieved. The highest PTR was 1:45 recorded from school 8; the lowest was 1:21 recorded from school 3. These findings are corresponding to those reported by Lyanga and Chen (2020) who noted that in most classrooms, the student-teacher ratio was unbalanced.

Based on these findings, it should be recalled that the number of secondary schools has been increasing year after year as a result of the government's efforts to ensure that Tanzanians have access to education. Also, there has been a significant increase in student enrolment; however, this success has not been matched with the increase in the number of qualified teachers. Instead, the number of teachers has been decreasing year after year. This has worsened the pupil-teacher ratio from 1:16 in 2016 to 1: 27 in 2021, thus posing a challenge to effective teaching and learning. Literature suggests that reducing the class size has an overall positive effect on students' achievement, whereas worsened the student-teacher ratio (PTR) negatively affects students' achievement (Achilles et al., 1998). In this study, it was learnt that teachers were not being utilised well since for some subjects, teachers (in certain schools) were many compared to the needs, while in other schools they were scarce. Generally, as it was observed, teachers in schools were poorly allocated because in certain schools there were too many teachers of a particular subject, while other schools had a shortage of teachers in the same subjects.

Utilisation of Educational Physical Resources

Questionnaires were used to collect data on the utilisation of the physical resources. The teachers and students were asked to rate the utilisation of the physical resources by indicating whether the physical resources were utilized to the maximum, to some extent, or not utilized at all. Their responses are presented in Table 5.

Table 5: Utilisation of Physical Resources – Teachers' and Students' Responses

	Item Utilisation				Ite	em Utilisation	
Item	Maxi mum	To some extent	Not at all	Item	Maxi mum	To some	Not at all
Classrooms	85%	15%	0%	Chalkboard	85%	12%	3%
libraries	37%	44%	20%	Whiteboard	3%	2%	95%
Laboratory	53%	45%	3%	Bulletin Board	8%	20%	73%
Latrines	64%	35%	2%	Display Board	14%	30%	56%
Offices	67%	25%	8%	Charts	36%	51%	13%
Student Table	86%	14%	0%	Models	29%	63%	8%
Student	86%	14%	0%	Maps	20%	69%	12%
Office Tables	75%	24%	0%	Projectors	3%	30%	67%
Office Chairs	80%	20%	0%	Computers	17%	38%	51%
Lab Tables	48%	35%	2%	Printers	18%	48%	39%
Lab Chairs	54%	26%	20%	Globs	28%	54%	18%
Library Tables	30%	32%	39%	Pictures	20%	64%	16%
Library Chairs	30%	30%	40%	Duplicating machine	27%	42%	31%
	AVERAGE				42%	34%	24%

Source: Field data (2022)

The study found underutilisation of physical resources such as libraries, library chairs, tables, projectors, computers, printing machines, duplicating machines, display boards, bulletin boards, whiteboards, charts, maps, models, pictures, and globs. The results show that utilisation of the available physical resources was low (less than 50%); the maximum utilisation was only 42%. This shows low level of utilisation of physical resources. Materials like projectors, computers, printers, bulletin boards, whiteboards, library and library materials, and laboratory equipment were found to have been rarely used. The findings suggest that, the available resources were not being utilised to their maximum. It should be noted that poor utilisation of resources such as laboratories, libraries, computers, and other teaching and learning materials may affect the process of teaching and learning, hence poor performance. Again, it should be recalled that good outcomes in education depend on the availability of resources and how the available resources are utilised (Bukoye, 2019; Olufunke, 2012). These findings concur with those obtained from interviews. For instance, one of the participants stated:

We have laboratory buildings, but we rarely use them. Often, the form four students who prepare for exams are the ones who use the laboratory the most. Regarding the library, the situation is the same; it is not used much since most of the time it is closed. In general, it is used as a place just for storing books. Teaching and learning materials such as globs, charts, maps, computers, and projectors are also rarely used." (Interview with the student, 2022)

The findings of the current study are in line with those observed by (Mayaka, 2019; Pamela & Mwila, 2022; Wanjiku, 2013). They all found that the available physical resources in secondary schools were underutilized; most schools lack the resources. As a result, proper

mechanisms for assuring the administration and utilisation of educational resources should be implemented. As noted earlier, this study employed the system resource theory of organisational effectiveness which focuses on how internal processes mediate the relationships between inputs and outputs. With this theoretical framework, it could be argued that the availability of educational resources alone is not enough; there must be an effective utilisation of those resources. In the researcher's opinion, effective utilisation of teachers, financial resources, and material resources is the basis for success in providing quality education in the community. Thus, teachers should be evenly distributed based on the needs, also financial and physical resources should be well utilized.

Conclusion and Recommendations

This study indicates that, information and communication technology (ICT) facilities like computers, projectors, and duplicating machines were not available in most schools. In contrast, educational resources such as classrooms, latrines, student tables and chairs, office tables and chairs, chalkboards, capitation grants, and teachers were available in almost every school. However, it is noted here that, their availability did not mean they were adequate. The shortage of teachers, financial resources, and material resources in the selected secondary schools was clear. Thus, it is concluded here that resource utilisation in the selected schools was at a low level. It is recommended that the Tanzanian government (through the Ministry of Education Science and Technology – MOEST, in collaboration with the President's Office Regional Administration and Local Government - PO-RALG), should ensure that teachers are adequately available and that the balance of teachers is maintained. Also, students should have access to adequate physical resources while at school. The government should also make sure that the capitation grants provided is sufficient and reasonably used. Schools should establish a good system for students to use laboratories and libraries.

References

- Achilles, C. M., Sharp, M., & Nye, B. A. (1998). Attempting to understand the class size and pupil-teacher ratio (PTR) confusion: A pilot study. ERIC. Retrieved from https://files.eric.ed.gov/fulltext/ED419290.pdf
- Adeogun, A. A. (2001). The principal and the financial management of public secondary schools in Osun State. *Journal of Educational System and Development*, 5(1), 1–10.
- Barro, R. J. (1999). Human capital and growth in cross-country regressions. *Swedish Economic Policy Review*, 6(2), 237–277.
- Brandt, K., & Mkenda, B. (2020). The impact of eliminating secondary school fees: Evidence from Tanzania. *Development Economics Research Group Working Paper*, 06–2020.
- Bukoye, R. O. (2019). Utilisation of instruction materials as tools for effective academic performance of students: Implications for counselling. *Proceedings*, 2(21), 1395. Retrieved from https://doi.org/10.3390/proceedings2211395
- Chipana, B. R. (2018). The influence of library resources utilisation on students' academic performance: A case study of public secondary schools in Dodoma Municipality. [The Open University of Tanzania]. Retrieved from http://repository.out.ac.tz/id/eprint/2222
- Chirimi, D. O. (2016). The impacts of teachers' workload allocation on teaching and learning effectiveness of science subjects in secondary schools: The case of Hanang district, Tanzania. Mzumbe University.
- Economic Point. (n.d.). *Financial resources*. Retrieved from https://economic point.com/financial-resources
- Harindintwari, J., Veraeli, E. S., & Ogondiek, M. W. (2020). Availability of materials and school materials utilisation in implementing Competence Based Curriculum in selected nine years basic education of Nyamasheke District, Rwanda. *European Journal of Sciences Studies*, 5(5).

- Hoogeveen, J., & Rossi, M. (2013). Enrolment and grade attainment following the introduction of free primary education in Tanzania. *Journal of African Economies*, 22(3), 375–393.
- Ibukun, W. O., Akinfolarin, C. A., & Alimi, O. S. (2011). Correlate of resource utilisation and students' learning outcome in colleges of education in South West Nigeria. *International Education Studies*, 4(3), 178–184.Retrieved from https://doi.org/10.5539/ies.v4n3p178
- 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.
- Kassim, K. M. (2021). Challenges facing stakeholders in implementing fee free secondary education in Tanzania. *Ruaha Journal of Arts and Social Sciences*, 7(2), 202–210.
- Kaya, A. ihsan. (2016). Differences between literature and arts in the context of language. *Global Journal on Humanities & Social Sciences*, 3, Glob. J. Humanit. Soc. Sci. G
- King, N. A. S. (2013). Investigation of factors hindering quality education in secondary schools in Mbeya, Tanzania. *International Journal of Learning and Development*, 3(6), 52–63.
- Lawrent, G. (2020). School infrastructure as a predictor of teacher identity construction in Tanzania: The lesson from secondary education enactment policy. *African Studies*, 79(4), 409–427.
- Lyanga, A. A., & Chen, M. (2020). The impacts of fee-free education policy in junior secondary schools in Tanzania. *AJESS*, 13(3), 36–47.
- Malekani, A. A. (2018). Access to, use and challenges of ICTs in secondary schools in Tanzania: a study of selected secondary schools in Morogoro Municipality. Information Impact: *Journal of Information and Knowledge Management*, 9(2), 44–57.
- Masoud, A. H. (2012). Availability and utilisation of teaching and learning resources and teachers' competence in selected government secondary

- schools in Urban West, Zanzibar, Tanzania. Kampala International University.
- Mayaka, C. (2019). Effect of utilisation of physical resources on performance of students in The Kenya Certificate of Secondary Education in public secondary schools in Marani Sub-County, Kenya. Africa Nazarene University.
- Mgaya, H. R. (2021). Mobilisation of physical resources strategies and effective curriculum implementation in public secondary schools in Kilolo District Council, Tanzania. COSTECH Integrated Repository. Retrieved from http://repository. costech.or.tz /handle/ 123456789 /77990
- Mkalagale, V. (2013). The poor performance of student in community Secondary schools in Tanzania: a case of Temeke District. Mzumbe University.
- Mndeme, Y. E. (2020). Assess the challenges influencing implementation of free secondary education program in Dar es Salaam: A case study of Kinondoni Municipality. The Open University of Tanzania. Retrieved from http://repository.out.ac.tz/2494/
- Munisi, I. S., Werema, S., & Namusonge, G. S. (2021). Assessment of free secondary education policy on quality of secondary education in Tanzania: A case study of Meru District Council. *International Journal of Social Sciences and Information Technology*, VII(III).
- Naisiyaki, S. L., Jackson, K. T., & Kirui, J. K. (2017). Perception of teachers on the availability of instructional materials and physical facilities in secondary schools of Arusha District, Tanzania. *International Journal of Educational Policy Research and Review*, 4 (5), 103–112.
- Neill, G. (2001). *Designing coherent education policy: improving the system*. San Francisco: Jossey-Bass.

- Nzima, I. (2016). Competence-based Curriculum (CBC) in Tanzania: Tutors' Understanding and their instructional practices. Linnaeus University.
- Obidile, J. I., & Obi, O. C. (2020). Assessment of adequacy, availability and extent of utilisation of instructional materials in the teaching of business studies in secondary schools in Anambra State. *African Research Review*, 14(1), 52–60.
- Olufunke, B. T. (2012). Effect of availability and utilisation of physics laboratory equipment on students' academic achievement in senior secondary school Physics. *World Journal of Education*, 2(5), 1–7.
- Pamela, B. E., & Mwila, M. (2022). Assessing the status of educational resources in rural public secondary schools in Misungwi District, Tanzania. *Journal of Research Innovation and Implications in Education*, 6(1), 496–505.
- Pareek, R. B. (2019). An assessment of availability and utilisation of laboratory facilities for teaching science at secondary level. *Science Education International*, 30(1).
- Psacharopoulos, G. (1994). Returns to investment in education: A global update. *World Development*, 22(9), 1325–1343.
- Rao, D. B. (2003). World education forum. Discovery Publishing House.
- Sakmurzaeva, N. (2018). The role of education in economic development: A comparison of South Korea and Kyrgyzstan. *International Conference on Eurasian Economies*, 29–33.
- Sephania, N., Too, J. K., & Kipng'etich, K. J. (2017). Perception of teachers on availability of instructional materials and physical facilities in secondary schools of Arusha District. *Tanzania*. *Journal of Teachers*, 4(28), 68–102.
- Sifuna, D. N. (2007). The challenge of increasing access and improving quality: An analysis of universal primary education interventions

- in Kenya and Tanzania since the 1970s. *International Review of Education*, 53(5), 687–699.
- Sifuna, D. N., & Sawamura, N. (2010). Challenges of quality education in Sub-Saharan Africa-some key issues. Hauppauge, *NY: Nova Science Publishers*.
- TIE. (2013). Maboresho na mabadiliko ya mtaala toka 1961 had 2010. [Curriculum Reviews and Changes from 1961 to 2010]. *In Tanzania Institute of Education*.
- UNESCO. (2000). The Dakar framework for action: Education for All: Meeting our collective commitments. UNESCO.
- URT. (2004). *Secondary Education Development Plan* (SEDP) 2004–2009. Ministry of Education and Culture.
- URT. (2020). *Tanzania in figures*. Tanzania National Bureau of Statistics. Retrieved from https://www.nbs.go.tz/index.php/en/tanzania-infigures-202
- Usman, Y. D. (2016). Educational resources: An integral component for effective school administration in Nigeria. *Online Submission*, 6(13), 27–37.
- Victorini, S., & Wambiya, P. (2016). Assessment of the adequacy of resources and facilities to enhance learner centred pedagogy in secondary schools in Kilimanjaro region, Tanzania. *European Journal of Education Studies*.
- Wanjiku, M. E. (2013). Availability and utilisation of educational resources in influencing students' performance in secondary schools in Mbeere South, Embu County, Kenya. Master's Degree Thesis, Kenyatta University.
- Windham, D. M. (1992). Education for All: The requirements. World conference on education for all (Jomtien, Thailand, March 5-9, 1990). Monograph III. Roundtable Themes III. Unesco Press, 7, place de Fontenoy, 75700 Paris, France.

- World Bank Group (2021, June 10). Education Above All Foundation and World Bank partner to enrol 30,000 Out-of-school children in Djibouti [press release]. https://www.worldbank.org/en/news/press-release/2021/06/10/education-above-all-foundation-and-world-bank-artner-to-enroll-35-000-out-of-school-children-in-djibouti
- World Bank, (2021) *Understanding poverty: Education overview*. The World bank. Retrieved from https://www.worldbank.org/en/topic/education/overview
- Yuchtman, E., & Seashore, S. E. (1967). A system resource approach to organisational effectiveness. *American Sociological Review*, 32(6), 891–903.