



Effects of Increased Student's Enrolment on Quality Education in Public Secondary Schools in Arusha District

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Abstract: *Inadequate resources in schools as a result of over enrolment since the inception of the free education policy in Tanzania in November 2015 have compromised the quality of education in public secondary schools. The study was guided by the Enrollment Management Theory. The objectives of the study were to: examine the extent to which increased Students' Enrollment influences quality education in secondary schools and to determine the coping strategies employed to mitigate the effects of increased Students' Enrollment on quality education in public Secondary Schools in Arusha District. Convergent mixed methods design was adopted. The sample size for the study was 108 teachers selected using stratified and simple random sampling technique, 10 school heads and one DEO purposively selected. Questionnaires were used to collect quantitative data from secondary school teachers whereas interview guides were used to collect qualitative data from school heads and education officer. Validity was established through expert judgment whereas a pilot study was conducted to test for Reliability using Guttman Split-Half Coefficient($r=0.985$). Credibility and dependability were established through detailed reporting of the research process. Qualitative data were analyzed thematically alongside research whereas quantitative data were analyzed using descriptive statistics and presented in tables and charts. The study established that increase of students' enrolment as influenced by free basic education policy causes constrain on inadequate resources hence poor quality education. Thus, the study recommends that school management and MoEST should improve quality education through teacher training, better salary payment, proper infrastructure, good learning environment and effective school management.*

Keywords: *Enrolment, Education, Quality, Schools, Arusha*

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1. Introduction

United Nations Economic Commission for Africa (UNECA) emphasized that African countries, including Tanzania have quest for quality education for all because education is the pivot for national development (UNECA, 2017). Tanzania, among other 164 countries, participated in international conference in Dakar, Senegal in 2000 to discuss the issue of quality education for all, which is known as Education for All (EFA). The conference

insisted on expanding and improving comprehensive care and education for all, regardless of the background, economic status, ethnic minorities, vulnerability, sex, and disadvantaged children and ensuring that by 2015, all children, have access to and complete education of good quality (Rena, 2016). The policy on Education for All was to ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes, especially for women, and equitable access to basic and continuing education for all (URT, 2014). Then, eliminating gender disparities in

primary and secondary education, and achieving gender equality in education by 2015, improving every aspect of the quality of education, and ensuring excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills (Lewis, 2017). This has resulted into increased enrollment in primary schools and eventually the need for expansion of secondary education meaning that the increased number of enrollment in primary education pushed the enrolment in secondary education as well.

According to Rumberger (2018), most governments found the necessity to address the issue of increased enrollment by employing various strategies such as construction of more infrastructures, employment of more teachers and laboratory technicians and formulation of new education policies, such as free education policy. Due to the explosion of population in most countries, especially African and Asian countries, the strategies to curb the increase of enrolment rate in schools are a little behind the reality. It is evident that the increase of enrolment neutralizes the quality of education because the governments do not confront the issue accordingly (Rockoff, and Benjamin, 2017). Sub-Saharan Africa (SSA) has made significant progress in secondary school enrollment - from an overall net enrollment rate of 11% in 1970 to 32% and 22% for lower and upper secondary respectively in 2018 (UNICEF, 2019). This increase has been larger in poorer countries. For example, in Mozambique, enrollment jumped from 7% in 1999 to 64% in 2016. In India, parents rushed to private schools for admission from government schools. Enrolment has increased in both private and government schools. For instance, out of 43, 287 government schools in the State, 15,189 government schools have recorded an increase in student intake. While the increase in student strength is around 10% in some schools, several schools have reported a 100% increase (HakiElimu, 2014).

According to UNESCO (2014), Sub-Saharan African countries, including Tanzania continuously face enrollment increase which seems to disturb the quality of education in public secondary schools. For example, the average enrollment ratio in all developing countries is 88 per cent, which is spectacularly high compared to the output (quality of education) that is imparted to the graduates (Lewin, 2017). In order to ensure the increase of students' enrollment and quality education, Tanzania since her independence has been making efforts to implement several strategies. Programmes and education development plans have been developed such as Secondary Education Development Programme (SEDP), Big Results Now, Education policy of 2014, and free education policy of 2015 (URT, 2009: 2014: 2015). Since the establishment of the free education policy in Tanzania in November 2015, there has been massive increase of enrollment of students in Tanzania including Arusha region. Various Quality Assurance Reports have indicated

that inadequate basic requirements in schools as a result of over enrolment have compromised the quality of education in public secondary schools (MoEST, 2020). For instance, inadequate infrastructure, poorly motivated teachers, overcrowded classes and inadequate teaching staff resulting in high student-teacher ratio has compromised the quality of education in public secondary schools. The regional government is busy coping with the situation of increased enrolment by employing various mitigating strategies, including construction of school infrastructures and employing more teaching staff. Despite these efforts by the government, achieving quality education in public secondary schools has remained elusive.

The study was guided by the following Research Questions:

- a) To what extent does students' enrollment affect the quality education in secondary schools in Arusha District?
- b) What are the coping strategies employed to mitigate the effects of increased Students' Enrollment on quality education in public Secondary Schools in Arusha District?

2. Literature Review

The theoretical and empirical literature was reviewed with reference to research objectives. The study was guided by Enrollment Management Theory.

2.1 Enrolment Management Theory

The theory was postulated by Maguire (1976) of Boston College who is credited with the first use of the term "Enrollment Management Theory" to describe institutional efforts to influence student enrollment. Kemerer and Green (1982) formalized the concept, proposing that it is an organizational concept and a process. Meaning that, Enrollment is a cradle to vital process that starts at the first point of student contact (the prospect) and continues to and through graduation. Management activities concern student school choice, transition to school, student attrition and retention, and student outcomes (Rumberger, 2018).

The theory of enrollment management was further developed by Dolence (1996) in the form of Strategic Enrollment Management (SEM). The theory defines SEM as "a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students, where 'optimum' is defined within the academic context of the institution". Regarding the enduring effect (institutional image), many organizations are pressured to focus on short-term results (for example, enrollment for the upcoming term, the quality or diversity of the incoming class, annual retention and graduation rates) rather than a protracted campaign to improve institutional image. Enrollment trends rise and fall over time, and only a solid institutional image can sustain a school through an enrollment draught. Assuming

an institution's leadership perceives institutional image as a valuable asset to be protected and nurtured (Dolence, 1996), then the enduring behavior sought by enrollment organizations is loyalty. Student and alumni loyalty yields positive "word-of-mouth" (the most powerful recruitment factor for any institution) and enhanced commitment to the education institution (a proven factor in reducing student attrition).

The theory is relevant to this study as it contends that for any education institution to uphold quality it should well manage the enrollment of students in accordance with the school resources such as number of the staff, teaching and learning resources which fully interact with conducive environment that continuously change. Efraim (2019) put forth the views that if an education organization is to be effective, it must bring attention to the enrollment management. The theory was used to achieve a rich understanding of how the enrollment management is seen from various perspectives. It helps education systems to work better together in bringing better results such as quality education.

2.2 Effects of Increased Enrollment on Quality Education in Secondary Schools

In India, physical facilities are the fundamental factors in better learning and achievements of the students (Saeed and Wain, 2011). Due to increased students' enrollment, all facilities must be provided in the schools for the students' better, concrete, and real experiences. Physical facilities help to enhance the learning of the students. In addition, research by Azard and Kumar (2016) shows that availability of the physical facilities including classrooms, water, electricity, boundary wall, toilets, furniture, playgrounds, libraries, and dispensaries have a significant positive influence on the performance of the students and their achievement

In Canada, the study undertaken by Shami and Hussain (2015) revealed that the availability of physical facilities in a school had a significance on students' performance. In the context of school facilities, the environment in which the students learn is very crucial and without the suitable environment effective learning cannot take place. Bruce (2016) has rightly called the learning environment as the third teacher but it is important that, the environment is not an end in itself; we have to look at the settings. Space is an important factor in providing a rich environment for learning, but it is only significant to the degree that it assists in providing a suitable climate for learning. Saeed and Wain (2011) confirm that, physical conditions have direct positive and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment.

The study by Seif (2018), looked at quality of education services provided by the private secondary institutions. The study revealed that the quality of education service offered by private secondary institutions centres in the district were poor due to a number of factors including increased students' enrollment, availability of inadequate teachers' manpower, teaching and learning materials, teachers-pupils' ratio, availability of funds, pedagogy of teachers, school inspection, teachers' in-service training and other related factors that measure the quality of education services.

Taherdoost (2016) observed that the Chinese government instituted several policies to improve the quality of teachers in primary and secondary schools, notably training and employment of human resource. According to the new training policy, each teacher in public primary and secondary schools must take training every five years. Trainings are designed according to teachers' professional responsibilities, and aim to improve their professional ethics and skills for the purpose of improving student performance. The National Teacher Training Programs for Teachers in Primary and Secondary Schools (TNTTPTSS) was implemented by the Chinese Ministry of Education and the Ministry of Finance (TNTTPTSS, 2010). The program is an important measure, as it is designed to improve the overall quality of teachers, especially those from rural primary and secondary schools. The plan is composed of many specific training programs such as the Project of Exemplary Teacher Training for Teachers in Primary and Secondary Schools and the Project for Rural Core Teacher Training in Central and Western China. Special training is designed for new teachers during the probation period to help them adapt to their job requirements. Every new teacher must finish at least 120 class hours of training before beginning his or her post.

Mish (2020) observed that in India, parents rush to private schools for admissions due to adequate and qualified staff. Enrolment in government schools has increased compared to the private schools as a result of increased material and human resources. For instance, 15,189 government schools recorded an increase in student intake (Mish, 2020). There are 43,287 government schools in the State. While the increase in student strength is around 10% in some schools, several schools have reported 100% increase. In many instances, government schools have been forced to turn away students due to constraints in infrastructure. So far, 42.5 children have been admitted to government schools, 12.17 students to government aided schools, and 40.57 children to private unaided schools. For the 2019-20 academic years, 43.28 students were enrolled in government schools, while private unaided school enrolment was 46.13 and aided schools had 13.33 students (Kapoor, 2019). One of the main reasons for this sudden 'popularity' in government schools is the fees. Many families are pulling their children out of private schools as

they can no longer afford private school fees due to salary cut or job loss on account of the pandemic (Mish, 2020).

In Canada, International students increasingly contribute to Canada's secondary landscape. Over the past decade, from the 2008/2009 to 2018/2019 academic period, enrolments for Canadian students grew by 10.9% (from 1,486,602 to 1,648,923). Over the same period, the number of international students more than tripled from 101,304 in 2008/2009 to 318,153 in 2018/2019. As a result, over a decade, the proportion of international student enrolments changed from 6.4% to 16.2% by 2018/2019 and represented 57.2% of the total growth in all program enrolments (Ephraim, 2019).

Burns (2019) holds that Sub-Saharan African countries must allocate more resources to expand access to secondary education in parallel with the quality education. Most governments do not balance access with quality. Improving access (enrollment) to secondary education and ensuring quality and equity, will require significant policy changes and large investments of human and financial resources. Teaching quality is neither a widely agreed upon nor uniformly accepted concept. Instead, it is defined very differently or is grounded in different assumptions. These differences can be seen in perspectives associated with students enrolled per class, availability of teaching/learning facilities, teachers' cognitive resources, their performance, and their effect (Kennedy, 2008). Empirical support for the conception of quality teaching for each of these is often weak, inconsistent, or even contradictory. Quality education from a cognitive resource perspective is related to the knowledge, beliefs, attitudes, and dispositions teachers bring into the profession. From this perspective, we can trace several notions that appear central to policy debates related to teaching. The studies focused on the effects of increased students' enrollment and availability of resources on quality education.

For the case in the East African region, there has been an increase of students' enrolment in secondary schools. For instance, Burundi has portrayed the evidence of increased enrolment from 1.4% in 1973 to 49.2% in 2017 (UNESCO, 2019). Rwanda has an increase of students' enrolment from 12.52% in 2001 to 44.3% in 2019. Uganda had an increase from 3.78% in 2001 to 74.6% in 2017. In Kenya, the enrolment of students in secondary schools show that in 2018 there was 2.9 million students' enrolment and in 2019 there was an approximation of 3.26 million students' enrolment. Although there has been massive increase of secondary students' enrolment, the quality education is still a problem simply for the reason that the number of students does not go together with the infrastructures, number of teachers, number of books, and students' needs (UNESCO, 2019).

2.3 Coping Strategies Employed in Public Secondary Schools to Mitigate the Effect of Increased Students' Enrollment on Quality Education

In India, Physical facilities are the fundamental factors in better learning and achievements of the students (Saeed and Wain, 2011). All facilities should be provided to the schools for the students' better, concrete, and real experiences. Physical facilities help to enhance the learning of the students. Therefore, all efforts such as mobilizing funds and employment of more teachers both permanent and temporary by Board of Governors (B.O.G) should be put in place in order to address the availability of teaching and learning facilities. Research by Rumberger(2018) shows that availability of the physical facilities, including classrooms, water, electricity, boundary wall, toilets, furniture, playgrounds, libraries, and dispensaries have a significant positive influence on the performance of the students and their achievement.

In Canada, the study undertaken by Shami and Hussain (2015) revealed that the availability of physical facilities in a school had a significance impact on students' performance. In the context of school facilities, environment in which the students learn is very crucial and without the suitable environment effective learning cannot take place. Bruce (2016) has rightly called the learning environment as the third teacher but it is important that, the environment is not an end in itself; we have to look at the settings. Space is an important factor in providing a rich environment for learning, but it is only significant to the degree that it assists in providing a suitable climate for learning. Saeed and Wain, (2011) confirms that, physical conditions have direct positive influence on quality education and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment.

Yugi (2012) investigated the effect of enrolment in public primary schools on quality of education in Nakuru Municipality. This study adopted a cross sectional survey design with study units being drawn from representative public primary school teachers and pupils in Nakuru Municipality. This survey design enabled the researcher to gain understanding of the relationship between enrolment rate in public primary schools and learning facilities and how they impact on quality. Data collected was analyzed using descriptive statistics including frequency tables, measures of central tendencies (mean) and dispersion (standard deviation), cross tabulation to describe, analyze and present the study findings. Findings from the study revealed that the increased enrolment in most of the sampled schools had huge class sizes whereas the teaching load for most teachers was big, and available school facilities were inadequate. Furthermore, Lee and Shin (2014) observed that the current poor staffing level was the strongest impediment in realization of the objectives of quality education. Performance in examination as the

workload for the teacher has continued to pile. Based on these findings, it was recommended that the Government should put more effort to define clearly what role the parents need to play in partnership with other stakeholders in the provision of quality education.

Mfanganvo (2015) investigated the effects of students' enrolment on effective teaching-learning in community secondary schools in Arusha city council in Tanzania. The study employed descriptive research design by applying the qualitative and quantitative approach. The findings revealed that there was correlations between teacher-student ratios and quality education as the teachers were confronted with large number of students in the class. Moreover, there was correlation between books and enrolled students. In a related study by Rockoff and Benjamin (2017), the facilitator faced challenges, especially in teaching and learning techniques when classes are overcrowded and facilities are limited. Mostly, they adopted lecture method which implies one way traffic mode concerning teaching-learning process. Obviously, this affected students' performance in their tests and examinations since these methods are not effective in the teaching-learning process without reference materials.

According to Rena (2016), teachers had excellent qualifications since most of them had obtained bachelor degrees and Diplomas in education. The study also revealed that teachers were facing hardship conditions and they were taking long time without being promoted. As a result the overall performance was not good but it could be improved if the above weaknesses were corrected as recommended in the study. Another study conducted by Bruce (2016) recommended that government should provide adequate resources based on modern technologies.

The study by Seif (2018), looked at quality of education services provided by the public secondary institutions. The study revealed that the quality of education service offered by public secondary institutions centres were poor due to a number of factors including availability of teachers' manpower, in adequate teaching and learning materials, teachers-pupils' ratio, availability of funds, pedagogy of teachers, school inspection, teachers' in-service training and other related factors that measures the quality of education services. Generally, shortage of teachers, classrooms and funds were found to be the major challenges facing public secondary institutions.

Ronald (2018) assessed the Impact of Increased Enrolment of Students on the Quality of Teaching and Learning: A Case Study of Secondary Schools in Kakuuto County, Rakai District in Kenya. In the findings, it was discovered that increased enrolment of students was caused by poor policies applied by government in the quest to ensure that secondary schools absorb as many students as possible.

Mtahabwa & Rao (2019), examined the relationship between primary education policy and actual practice in Tanzania by focusing on education provided to children in secondary schools in Tanzania. The findings of the study revealed that there were considerable differences across rural and urban areas in terms of the class sizes, teacher/pupil's ratios, instructions resources, qualifications of the teachers and the physical setting and resources although the national educational policy specifies the same standards for education regardless of location. The study focused on the efforts made by the government to improve the provision of quality education services (URT, 2020).

As reported by United Republic of Tanzania, One of the most momentous developments in education in recent years came on November 27, 2015, when the government issued Circular 5, a policy delivering on the previous year's pledge for free primary and secondary school education for all citizens (URT, 2015). Legally, Tanzanians are now able to attend school for 12 years from the age of five to 16 without fee payment. The policy has been a great success, with the World Bank reporting a massive influx of new students. The circular stated that "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". While fees at public schools were only TSh20, 000 (\$9.10) a year for day pupils and TSh40, 000 (\$18.19) for boarders, these were still a burden on the lowest-income groups (URT, 2020).

Moreover, these fees were often accompanied by other charges, including schooling equipment and examinations fees. These would often push the total cost of sending a child to school above the TSh100, 000 (\$45.48) marks per year. Approximately TSh. 18billion (\$8.2m) was immediately released to cover the cost of implementing the directive, with a further TSh137bn (\$62.3m) earmarked for covering the cost of free secondary education for all (URT,2019). As of 2015, there were 4700 schools: 3600 public secondary schools and 1100 private secondary schools. A total of 1.4m pupils attended public secondary schools and 337,000 went to private secondary schools. It was found that just 52% of the eligible population attended secondary schools; and the number is expected to soar as the introduction of free secondary education continues to take effect going forward. For that indicator, the data for Tanzania from 1970 to 2019 shows that there was 2.67 percent enrolment in 1970 and a maximum of 32.04 percent increased enrolment in 2019 (URT,2020).

It should be understood that despite the increase of students' enrolment, the quality of education in Tanzania is poor due to various reasons such as poor teacher-student ratio, class size problem, absence of enough books, where by teachers are only struggling to make sure that students have higher pass rates instead of giving quality education

to students (UNESCO, 2019). In the recent past, and particularly following the outbreak of the pandemic, the government has made deliberate efforts to increase physical infrastructure to cope up with the increased enrollment in both primary and secondary schools (URT, 2021). This step has been applauded widely by stakeholders in education sector.

Mollel (2015) examined the quality of education practices in Tanzania: a case of community secondary schools in Arusha District Council. The study assessed the enrollment of students and quality education. The findings indicated that the practice to attain quality education in the district are hindered by the problem of science laboratory and science text books as well as teacher - student ratio, in the district which should be addressed in order to realize quality education.

3. Methodology

The research adopted convergent mixed methods design and collected both quantitative and qualitative data concurrently. The sample size for the study was 108 teachers selected using stratified and simple random sampling technique, 10 school heads were automatically involved in the study and one DEO purposively selected. Questionnaires were used to collect quantitative data from secondary school teachers whereas interview guides were used to collect qualitative data from school heads and

education officer. Validity was established through expert judgment whereas a pilot study was conducted to test for Reliability using Guttman Split-Half Coefficient method and the results found a reliability correlation coefficient of $r=0.985$.

Credibility of qualitative data was ascertained by involving multiple analysts, whereas dependability was established through detailed reporting of the research process. Qualitative data were analyzed thematically alongside the research questions and presented in narrative forms whereas quantitative data were analyzed using descriptive statistics and presented in tables and charts.

4. Results and Discussion

The findings were discussed with regard to research objectives.

4.1 The Effects of Increased Enrollment of Students on Quality Education in Secondary Schools

On the objective to examine the effects of increased enrollment of students on quality education in secondary schools in Arusha District. Table 1 summarizes the findings from teachers.

Table1: Findings on the Effects of Increased Enrollment of Students on Quality Education in Secondary Schools (n=97)

| Statement | Very Great Extent | | Great Extent | | Moderate Extent | | Little Extent | | No Extent | |
|--|-------------------|--------|--------------|--------|-----------------|--------|---------------|--------|-----------|--------|
| | f | (%) | f | (%) | f | (%) | f | (%) | f | (%) |
| Increased enrolment of students influence the availability of adequate teaching and learning materials | 41 | (42.3) | 30 | (30.9) | 26 | (26.8) | 0 | (0) | 0 | (0) |
| It lead to high student-teacher ratio | 9 | (9.3) | 22 | (40.2) | 20 | (20.6) | 7 | (7.2) | 39 | (22.7) |
| It cause constraint on school infrastructures hence compromise on quality education | 39 | (40.2) | 12 | (12.4) | 18 | (18.6) | 8 | (8.2) | 20 | (20.6) |
| It negatively affects conducive learning environment hence quality education | 25 | (25.7) | 29 | (29.9) | 13 | (13.4) | 15 | (15.5) | 15 | (15.5) |
| Limits the availability of students' needs such as basic, psychological and physiological needs | 14 | (14.4) | 9 | (39.2) | 0 | (0) | 36 | (37.1) | 38 | (9.3) |

Results in table 1 involving 97 teachers where 42.3% of respondents revealed that increased enrolment of students to a very great extent influence the availability of adequate teaching and learning materials. In addition, 30.9% of respondents revealed that increased enrolment influenced to a greater extent the availability of adequate teaching and learning materials. This implies that a total of 73.2% agreed that increased student's enrollment influenced the availability of adequate teaching and learning materials. However, none of the respondents reported that increased enrolment of students do not influence the availability of adequate teaching and learning materials. The research established that increase in enrolment causes constrain on ever limited teaching and learning materials thus, the need to increase resources with increased enrolment. This finding is supported by Rumberger (2018) in management theory which contends that for any education institution to survive, it should manage the enrollment of students in accordance with the school resources such as number of the staff, teaching and learning resources which fully interact with conducive environment that continuously change. World Bank (2018) weighed in by concluding that if an education organization is to be effective, it must bring attention to the enrollment management. This will help education systems to work better together in bringing better results such as quality education.

Also, 40.2% of respondents revealed that increased enrolment of students leads to high student-teacher ratio. Similarly, 40.2% of teachers revealed to a very great extent and 12.4% to a great extent that increased enrolment of students cause constraint on school infrastructures hence compromise on quality education therefore a total of 52.6% agreed with the statement. On the other hand, 25.7% of respondents mentioned to a very great extent and 29.9% observed that, to a great extent increased enrolment of students negatively affects conducive learning environment hence quality education. Therefore, a total of 55.6% agreed with the statement. Correspondingly, in Canada, the study undertaken by Shami and Hussain (2015) revealed that the availability of physical facilities in a school had a significant impact on students 'performance. In the context to school facilities, environment in which the students learn is very crucial and without the suitable environment effective learning cannot take place. Bruce (2016) rightly called the learning environment as the third teacher but it is important that, the environment is not an end in itself; we have to look at the settings. Space is an important factor in providing a rich environment for learning, but it is only significant to the degree that it assists in providing a suitable climate for learning. Saeed and Wain, (2011) confirms that, physical conditions have direct positive and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment.

On the sub-item Increased enrolment of students limits the availability of students' needs such as basic, psychological and physiological needs, 39.2% of respondents revealed that increased enrolment of students limits to a great extent the availability of students' needs such as basic, psychological and physiological needs, however, 37.1% of respondents revealed that increased enrolment of students limits to a little extent the availability of students' needs such as basic, psychological and physiological needs. In support of the above findings, Yugi (2012) investigated the effect of enrolment in public primary schools on quality of education in Nakuru Municipality. The findings from the study revealed that the increased enrolment in most of the sampled schools resulted in huge class sizes whereas the teaching load for most teachers was big, and available school facilities were inadequate. Furthermore, the staffing level was the strongest impediment in realization of the objectives of quality education. Performance in examination declined as the workload for the teacher continued to pile. Based on these findings, it was recommended that the Government should put more effort to define clearly what role the parents need to play in partnership with other stakeholders in the provision of quality education.

On the other hand, the findings from the interview of heads of schools and District Education Officer revealed that proper infrastructure improves the quality of education in secondary schools with the increased enrolment of students. The findings revealed that proper infrastructure makes the teaching and learning environment very conducive. One head of school reiterated that:

The increase of enrolment of students should go together with the construction of classrooms, toilets, and laboratories. Our school last year received more than 400 form one students which made us to seek financial assistance from district office to help us construct classrooms and toilets (Personal Interview, May 26th, 2021).

Regarding the same, District education officer pointed out that:

We are aware that we need appropriate and proper infrastructure to cope with the increase of students' enrolment in our district. We have built more than 80 classes in our 40 ward secondary schools over the past two years in order to cope with the free education policy (Personal Interview, May 25th, 2021).

Therefore, the findings revealed that adequate and standard infrastructure lead to quality education in schools with the large number of students. Hallack (2020) concurs with the findings by asserting that, a school or educational institute should have adequate infrastructure and if it is not

fulfilling that criteria then it won't be able to fit in the right kind of education. Infrastructure provides the right kind of environment where learning and education become interesting and is feasible.

Similarly, the findings from the interview of heads of schools and district education officer discovered that learning environment improves the quality of education in secondary schools with the increased enrolment of students. The findings revealed that teaching and learning environment should be very conducive. The researcher established that learning environment should be healthy, secure, and good for girls and boys meaning that it should be inclusive learning environment even for minorities like disabled people. Learning environment should include all students regardless of their disabilities, sex, background, and cultural values. In this respect, the district education officer posits that;

...as custodian of education service at district level, we try our very best to ensure inclusive environment in teaching and learning activities. For example, if we find students with disabilities we recommend them to go and study in day secondary school or other boarding schools with proper infrastructure, we also continue to make sure all other schools have a better learning environment for all students (Personal Interview, May 24th, 2021).

Therefore the findings revealed that learning environment is more than school infrastructure as Yugi (2012) pointed out the need for a healthy, secure, protective, inspiring and adapted learning environment for both girls and boys. The learning environment should be inclusive for minorities and students with disabilities. On the other hand, Lewis (2017) posits that students should learn to respect each other and the surrounding natural environment. Consequently, teachers should cooperate to ensure a sound learning environment. Parents and community should ensure that the school is welcoming place irrespective of the number of students enrolled.

4.2 Coping Strategies Employed to Mitigate the Effects of Increased Students' Enrollment on Quality Education in Public Secondary Schools

On the objective to determine coping strategies employed to mitigate the effects of increased students' enrollment on quality education in public secondary Schools in Arusha District, figure 2 summarizes the findings from teachers.

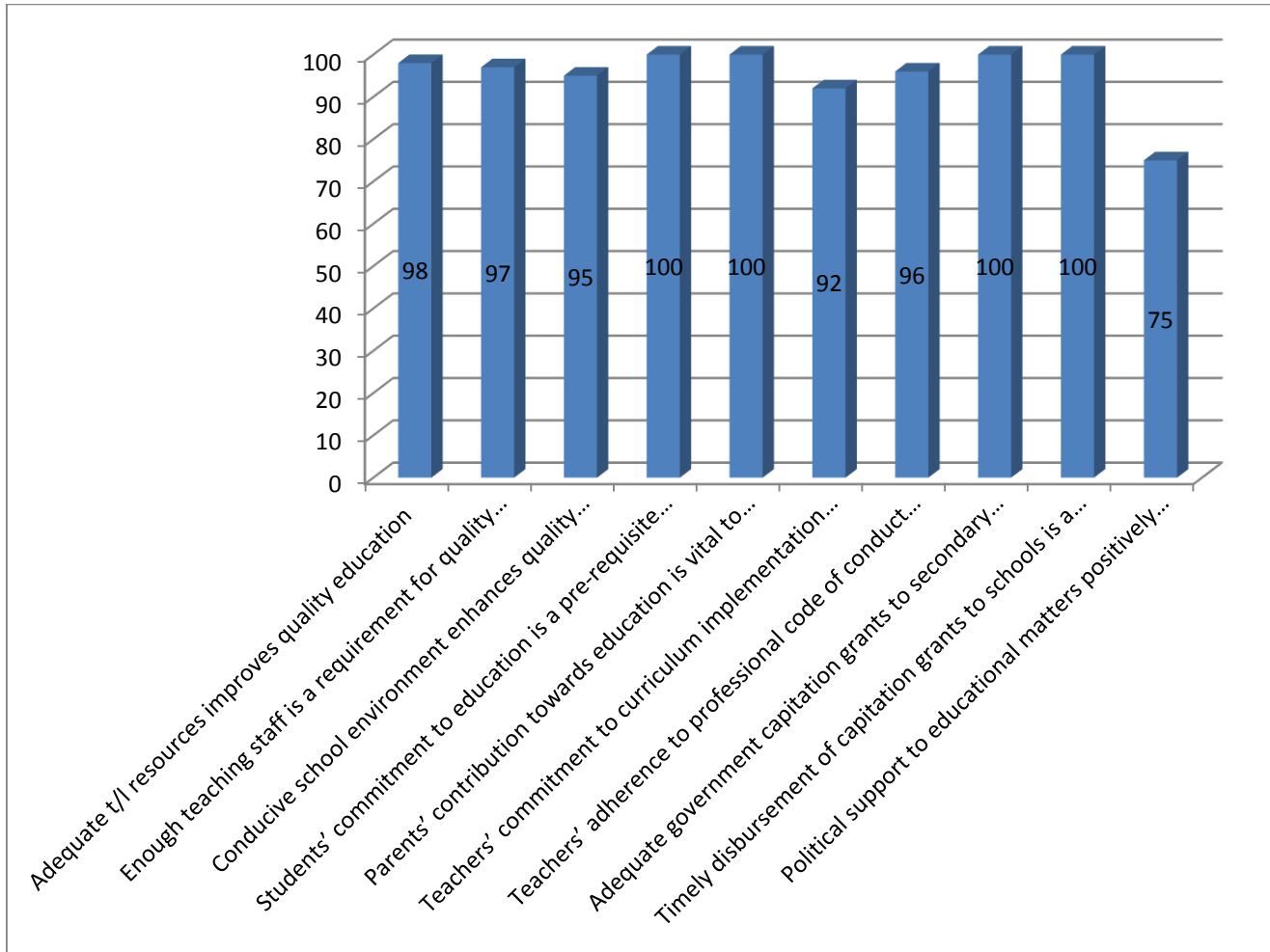


Figure 1: Teachers' Response on the Coping Strategies Employed in Public Secondary Schools (n=97)

t/l = teaching learning resources

Source: Field Data (2021)

Results of the questionnaire in figure 2 involved 97 teachers (respondents). On this objective, 98% of the respondents identified provision of adequate teaching and learning (t/l) resources as coping strategy to be employed in public Secondary Schools to mitigate the effect of increased Students' Enrollment on quality education. On this sub-item, only 12% of the respondents held contrary opinion. In addition, 97% of teachers agreed that providing enough teaching staff is a measure that should be employed in public Secondary Schools to mitigate the effects of increased Students' Enrollment on quality education while only 3% disagreed. The researcher found that provision of materials, human and financial resources are measures which can be put in place to alleviate the effect of increased Students' Enrollment on quality education. In this regard, Burns (2019) holds that Sub-Saharan African countries must allocate more resources to expand access to secondary education in parallel with the quality education. Most governments do not balance access with quality. Improving access (enrolment) to secondary education and ensuring quality and equity, will

require significant policy changes and large investments of human and financial resources. These findings are also supported by Mollel (2015), in a study to assess the enrollment of students and quality education. The findings indicated that the practice to attain quality education is hindered by the problem of science laboratory and science text books as well as teacher - student ratio. The study did not touch on the rapid increase of students' enrollment and class size as factors that influence quality education as pointed out in Yugi (2012). Moreover, 95% of the respondents cited provision of conducive school environment as a step to lessen the effects of increased Students' Enrollment in order to enhance quality education.

Other coping strategies identified by the respondents were as follows; Students' commitment to education is a pre-requisite for quality education received approval by 100% of teachers. This implies that all (100%) the respondents were in agreement that student's commitment to education is a pre-requisite for quality education. The respondents (100%) further observed that parents' contribution towards

education is vital to quality education, teachers' commitment to curriculum implementation is crucial to quality education (92%) while teachers' adherence to professional code of conduct boosts quality education received approval rating of 96%. In this regard, Bruno (2012), noted that teachers' professionalism could imply all the ethical values teachers need in order to teach effectively. Moreover, all (100%) the respondents mentioned that adequate government capitation grants to secondary schools enhances quality education, timely disbursement of capitation grants to schools is also a factor for quality education (100%) and political support to educational matters positively affects quality education (75%). In order to provide support to the above findings, Ronald (2018) carried out a study on the Impact of Increased Enrolment of Students on the Quality of Teaching and Learning. In the findings, it was discovered that poor quality education is caused by increased enrolment of students due to spontaneous policies applied by government in the quest to ensure that secondary schools absorb as many students as possible. However, if well organized, such that infrastructure financial and human resources are made available for the increased number of students, then quality of education will be attained.

In addition, the findings from the interview of heads of schools and district education officer revealed that enough funding and good management of learning institution improves the quality education in secondary schools in face of increased enrolment of students. One head of school observed that;

We need enough school funds for monthly expenditure so as to run our school so well in academic activities, operations and administrative activities. We appreciate the school funds given by the government according to the number of students. However, it should be recommended that all schools with small number of students still need enough funds to effectively and successfully run & manage administrative activities (Personal Interview, May 25th, 2021).

In this regard, the district education officer posits that;

As the district education officer, we ensure that every school gets funds including school capitation and there is perfect allocation of funds based on expenditure and general management of school and we continue to recommend to our government to increase funds as far as free education policy is concerned and heads of schools must use the funds accordingly(Personal Interview, May 24th, 2021).

Therefore, the findings indicated that the funding and proper management in public school is important for

quality education. The findings concur with the previous studies as reported in UNESCO (2019) that a school that is not granted adequate funding and has no clear guidelines will not be able to ensure quality. However, each individual school must administer its own resources and organize the work in the best possible way.

Moreover, the researcher found that quality of teachers improves the quality education in secondary schools. The findings revealed that quality of teachers and students makes the teaching and learning environment very conducive. One head of school put forth the following comment;

It matters a lot when it comes to qualification and experience of teachers in teaching subjects be it science subjects or arts subjects, therefore for now I believe that we have qualified teachers to teach our students (Personal Interview, May 24th, 2021).

According to Chandi (2015), the students' academic outcome is measured by the results they attain in national examination which is a standardized instrument, a reliable measure and a good indicator of the quality of education offered in schools. Quality has become the concern of educational policy-makers around the world as the heart of education. Lack of quality means basic educational needs go unsatisfied. This would create inability in learners' lives and compromise their overall experience of living socially, culturally and economically.

Furthermore, another head of school noted that;

We have qualified teachers but the challenge is that some are lazy and non-committed in the teaching industry which sometimes leads to poor pass rate to our students and poor performance in examinations (Personal Interview, May 24th, 2021).

This is in agreement with the findings of Birgen (2015) who asserted that experience and qualification is the best asset for handling a task. The study reported that teaching is one of the duties that require both qualification and experience for better delivery. Recruitment of competent teachers to improve the provision of quality education is a necessary measure. Consequently, the researcher established that besides encouraging enrollment in schools, the government of Tanzania and other stakeholders should give adequate attention to teacher in-service training to enhance provision of quality education. The importance of teachers' formal training was supported by the findings by Kola and Sunday (2015), which viewed subject matter knowledge and pedagogical knowledge as measures of teachers' academic qualification. Similarly, teachers' mastery of the subjects they teach was accepted by majority of the respondents as one of the key teachers' academic characteristics that affect students' academic

outcome. The current finding is also in concurrence with the findings by Richardson (2018) that qualified teachers must demonstrate mastery of the subject matter in the field of their specialization or in the subject they teach. The mastery will help them manage the increased enrollment with relative ease.

It is worth noting, since the inception of free basic education, there has been an increase in the number of pupils in both primary and secondary schools. In order for all these students to get a quality education, qualified and motivated teachers are highly needed. Many people assumed that an increase in enrolment would correspond to a sufficient number of qualified teachers. A report by HakiElimu (2014) indicates that, there are many initiatives taken by the government and other education stakeholders to improve the education sector. The popular strategies or programmes undertaken recently include the Primary Education Development Programme (PEDP) as well as the Secondary Education Development Programme (SEDP). These two programmes have borne positive results: there has been an increase in enrolment and an expansion of classrooms. Government initiatives have also brought an increase in teaching and learning facilities. Moreover, the number of teachers has slightly increased since the PEDP and SEDP initiatives. These efforts on the part of the government should be recognized and acknowledged by the people

5. Conclusion and Recommendations

5.1 Conclusion

On the basis of the findings of the study, the following conclusions were drawn: the study concluded that the effects of increase in student's enrolment on quality education in public secondary schools include increased student- teacher ratio, class size, textbook-student ratio, and student's needs, dilapidated infrastructure, limited

funding and disorganizations leadership, de-motivated teachers due to too much workload and poor salary and lack of teachers recruitment and retraining.

The study identified strategies for quality of education in secondary schools with large number of students which include improving quality of teacher through retraining, better salary payment, proper infrastructure, good learning environment, effective school management, proper organization and enough funding.

5.2 Recommendations

Based on the research findings, the following recommendations are given forth;

- i. Teachers should form groups among students for teaching and learning so as to increase the contact hours because the set periods in classes are not enough for learning in school with large enrolment of students.
- ii. The government should increase the budget of capitation fees in secondary schools so as to improve quality education in public schools.
- iii. The government should regulate the enrolment of students in secondary schools from primary schools as some of the students who are enrolled in secondary schools are not qualified as they do not know how to write, read and do arithmetic.
- iv. The district education officers should make sure teachers get their rights and teach in conducive environment especially in schools with large number of students.
- v. The parents and community in general should participate fully in school activities such as teacher parent association, school contributions for development of infrastructure so as to make teachers and students perform their duties much better in schools with high enrolment rate.

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