

The struggle to improve quality of public secondary education in Tanzania: rethinking on the culture of maintenance and rehabilitation of furniture and infrastructure

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Abstract:

This study investigated the culture of maintenance and rehabilitation of furniture and infrastructure among the head of schools in public secondary schools in central Tanzania. The study investigated how leadership culture and political influences affect the culture of school maintenance. The investigation was broadened to include other factors that influence the culture of school maintenance. The study was cross-sectional. It involved qualitative and quantitative approaches. Data were randomly collected from seven districts of the Dodoma region. The researcher used structured questionnaires to collect data from Heads of schools. About 33 Heads of schools were randomly obtained across the region. A descriptive research design was adopted in aligning with the purposes of the study. The design is fact-finding and the interpretation of findings is valid. The design gives the flexibility of using both qualitative and quantitative approaches. The findings in both approaches reveal that the culture

of maintenance and rehabilitation is directly influenced by both leadership culture and politics. Descriptive analysis revealed that factors such as shortage of funds were the major factors that were reported in all schools regardless of their nature. The study also revealed a lack of training for school management teams and minimal involvement of the community. Repairing was revealed to be very expensive. Overcrowded classes, ignorance, and negligence of students were other findings. The qualitative analysis focused on the factors discussed in the descriptive analysis. Additionally, qualitative analysis reveals that leadership culture and politics have direct effects on the culture of school maintenance. The study recommends regular training for leaders and politicians at all levels in respective areas because these are in touch with the schools and the nature of community members. The recommendation also notes the importance of regular audits and site visits by administrators to each school. A mobile repairing and rehabilitation unit should be established visit all schools to undertake this work at affordable costs and timely. Lastly, there is a need to recheck the involvement of the community and micro-politicians in school maintenance and the proportions of capitation grants need to be rechecked to give flexibility on spending.

Keywords: *Secondary Education, Leadership, Repair and Maintenance, Quality Education, Teaching and Learning, Public Secondary School, Tanzania.*

Introduction and Background Information

We live in a linked and competitive world; socially, economically, and politically. Education being a social aspect, needs to be equally and effectively accessed by all age cohorts in a supportive environment because it has the power to shape the human race (Tilak, 2007). Maintenance and rehabilitation of furniture and infrastructure in public secondary schools enhance educational performance and ensures the effective preparation of leaders for future generations to face 21st-century challenges. Maintenance is a means of renewing the milieu of an infrastructure or a way of retaining its value so that it always serves the purpose intended. However, sustainable maintenance of school infrastructure is tossed on hurdles such as over-enrolments, occasional maintenance and aging of schools , inefficient government resources allocated for maintenance, poor management of funds, and estate management and provisions that do not match with the educational needs (Szuba, 2003; Gershberg, 2014). Infrastructure maintenance and rehabilitation are a great challenge among public schools in many rural and urban settings in developing countries because of their likelihood to trigger leadership or political influences.

It has been noted that the process of keeping the constituent parts of an infrastructure intact is mostly low and does not match the rate of demand in many public schools. Poorly maintained, lack of regular maintenance and uncompleted infrastructure and its shortage cannot serve the teaching and learning (T/L) efficiently. Physical infrastructure in schools, like classrooms, dormitories, laboratories, toilets, stores, and kitchens ensure teaching and

learning (T/L) if they are constructed and maintained. Furniture such as desks, tables, blackboards, chairs, and cupboards are equally important to any school since they improve learning and performance. Both physical and furniture normally wear out or deteriorate because of low or lack of maintenance and rehabilitation strategies in some schools (Mvuyekule, 2017). Furthermore, non-classroom infrastructure such as water supply and sanitation systems, ICT facilities, and office space for administration very essential in the 21st century to ensure a comfortable but inclusive environment for effective T&L (Theunynck, 2009).

It has been revealed that a lack of effective maintenance and culture of repairing furniture and other infrastructure by heads of schools and some political leaders may cause a total breakdown of infrastructure facilities. Similarly, the high cost of infrastructural provision, and eventually an acute shortage of teaching and learning infrastructure in most of the government learning institutions have been associated with school leadership. Poor or insufficient physical infrastructures and furniture negatively impact learning and performance outcomes in a school (Gershberg, 2014).

Since independence, Tanzania has been operating on rolling educational policies which entail the financing of government school operations and its facilities. The government has been financing school physical infrastructure and furniture through propositional capitation grants. Additionally, private organizations and donors have been contributing to finance school operations and facilities (URT, 2018). Because of routine and unexpected maintenance, costs are bound to rise and the percentage the government offers as a

capitation grant is not sufficient for repairing furniture and other school infrastructure, even though some heads of schools have a spirit of repairing resources and afford to put into practice the exercise of making rehabilitation. In that regard, administrators and other education stakeholders must be proactive by developing and implementing plans to deal with these inevitabilities. Meeting the demands for maintenance may require increased funding; but the government has a fiscal deficit to improve the efficiency of infrastructure provision at once (Hinum, 1999; URT, 2018).

Innovative leadership together with T/L facilities has a direct relationship with educational performance. Most public secondary schools with good physical infrastructure and furniture perform relatively well (Edwards, 1992; Earthman, 1996). Construction and maintenance of infrastructure are equally important to maintain a conducive environment for teachers and learners. In contrast, poor maintenance increases running costs and expenditure on rehabilitation, which fuels the “maintenance gap” in the government (Szuba, 2003). Despite the reality that maintenance and rehabilitation of school furniture and infrastructure contribute greatly the effective provision of education, many schools’ infrastructure are in bad condition. As a result of the poor maintenance and bad conditions at many schools, many questions generally arise. These are questions such as: Is the maintenance of infrastructure a quest of leadership culture or political influences? Should the current practice be maintained, or is there a need for new innovative approaches to supplement the current practices?’’ The need for effective but inclusive education provision in the 21st century has motivated the carrying out of the study on the maintenance and rehabilitation of furniture and

infrastructure in public secondary schools in central Tanzania. The question of whether the maintenance and rehabilitation of infrastructure is the quest of leadership culture or political influences has guided the discussion in the current study.

Significance of the Study

Education is both consumption and an investment good. It maximizes utilities. The issue of school physical infrastructure and furniture is critical. It has a direct impact on T/L and hence has an impact on educational performance for the current and future generations. The study is important to the government as it sheds light on the contribution of leadership towards the maintenance of school infrastructure which has a cost implication. Also, stakeholders in education are informed on the myriad of factors that influence the gap in the maintenance of T/L facilities among schools. To academicians, the study serves as a reference and adds knowledge to the literature of future studies on the same.

Research Methodology

The study was conducted in all seven districts of the Dodoma region. The study adopted both qualitative and quantitative research approaches. These approaches enhanced the study to have detailed information related to the maintenance and rehabilitation of T/L infrastructure among government-owned secondary schools in the Dodoma region. The approaches enabled the researcher to collect deep information on the culture of maintaining and rehabilitating the schools' T/L infrastructure.

The qualitative approach allowed the researchers to get a deeper and clear understanding of the respondents' roles, leadership and political influence, experience, organised actions, and challenges while the quantitative approach helped the researcher in analysing and presenting data and interpreting and consolidating the respondents' views on the culture of maintaining the T/L infrastructure. We adopted both qualitative and quantitative approaches to supplement each other and thus increase their ability to overcome the weaknesses and bias of using one approach with the strengths of the other, thus eventually increasing the validity and reliability of the data (Prudence, 2014; Greene, 2006).

The target population of the study included Heads of Schools or other teachers assigned to represent the Heads of schools among public-owned secondary schools in Bahi District Council (DC), Chamwino DC, Chemba DC, Dodoma City, Kondoa DC, Kongwa DC and Mpwapwa DC. Five (5) schools were randomly selected from each district. Schools and participants were selected using simple random sampling such that, every individual in the targeted population had an equal chance of being included in the sample. We adopted a simple random sampling strategy because a sample selected randomly is not subject to the biases of the researcher (Ary *et al.*, 2010). The sample of the study involved 35 randomly selected secondary schools out of which 35 respondents were selected from their respective schools. Structured interviews and questionnaires were the main tools for obtaining relevant information to meet the objectives of the study. This was cross-sectional research based on the time dimension.

Findings and Discussion

Factors Influencing the Maintenance and Rehabilitation of T/L Infrastructure in Public Secondary Schools in Central Tanzania

Figure 1 summarizes the factors which influence the process of keeping school infrastructure in good condition. Some 13 percent of all the respondents cited funds as the main factor that influences the process of maintaining T/L infrastructure. It was revealed that most schools did not have self-reliance projects to supplement the government grants. They were entirely dependent on the government policies of financing schools. It was found that the government financed the maintenance using proportional capitation grants and other devoted funds to rehabilitate school infrastructure. Due to fiscal insufficiency, it was noted that maintenance was being done at a low scale, and sometimes it was not being done. It was revealed that funds were very crucial to Heads of the schools the lack of which impeded the repairing out T/L infrastructure. It was noted that leaders at the school level depended on the implementation of political policies such as free fee education which made them operate only within their confines and dictates. They were confined only to the government capitation grants; thus closing any other financial avenues that would help them maintain their school infrastructure. These findings are in line with the findings by Osaro and Wokekoro, (2018) in Nigeria whose study revealed that inadequate funding negatively influenced the state of secondary schools' T/L facilities in Nigeria. The findings in these two different places signify the need to have diversities of resources to finance the maintenance of schools rather than depending entirely on a single source.

Another factor which is depicted in Figure 1 is the capitation grants from the government. These account for 12 percent of the responses. On this, respondents said that the government was providing capitation grants which could meet other expenditures such as on T/L materials. However, as it was noted, the proportion devoted to school maintenance did not meet the demand. This is because the rate of damaged infrastructure did not match the funds given for maintenance. Thus the proportion of funds given for the maintenance of school infrastructure would need to be accumulated for a long time; while the rate of damage to T/L facilities was high, thus leading to a significant number of facilities awaiting repair or replacement. The same results – that an insufficient proportion of the grants devoted to school maintenance contribute to inadequate physical facilities among public schools in the district, were obtained in Malaysia (Mazlan, Mohammed, and Bakri, 2008) and Uvinza district in Kigoma in Tanzania (Mvuyekule, 2017). The findings in both places signify the need for school leaders, political figures, and other stakeholders to increase the proportion of funds allocated to schools meet their actual demands.

It was also reported that the number of students influences the conditions of school infrastructure, and that it also affects the wearing out of T/L infrastructure. Figure 1 depicts that 12 percent of the respondents rated this as a determining factor concerning the budget allocated for sustainable use and maintenance of school infrastructure. However, the study noted that students lacked knowledge on the importance of properly keeping or using teaching and learning infrastructure for themselves, which would

guarantee their durability to be used by the next cohort of student intakes. The creation of awareness on the importance of keeping school infrastructure through counselling and students' by-laws is inevitable. School management and other school administration personnel need to reinforce desirable behaviour, as it was ported that some of them were deliberately destroying the infrastructure. The same situation – that less awareness increased poor asset maintenance in public schools which in turn increased government expenditure on repairing or construction – was reported in Malaysia (Mazlan *et al.*, 2008) and in Kenya (Hussein, Muturi and Samantar, 2018).

Besides, 9 percent of the respondents considered that repairing/rehabilitating was very expensive and posed the challenge of keeping T/L infrastructure in good condition. This finding is in line with the finding in the USA (Gershberg, 2009) where it was suggested that because the need for T/L facilities may vary geographically, there is a need to decentralize the financing policy. In the case of Tanzania, some places are supposed to import timber and other materials from far places, and this costs a lot of money. The best way to undertake repairs is to hire competent agents to do the job under government procurement procedures of offering tenders or making purchases. To avoid the severe wearing out of T/L infrastructure, schools need to be facilitated to hire a competent agent who can meet their demands in time. This has to do with setting priorities by political leaders and Head of Schools and putting in place cost-effective approaches over long-term planning using limited resources. Postpone

However, as it was noted, some other respondents felt that parents and guardians were not being held responsible for maintenance. This reservation accounts for 13 percent of all the respondents who said that support from parents was a challenge. Since the government has been implementing the free education policy, parents and guardians felt that they were less concerned with issues at schools. They entirely left the responsibility to the government. In the process of maintaining and rehabilitating T/L facilities, school management teams have been facing unnecessary criticisms from parents, something which jeopardizes the process of repairing and rehabilitating school infrastructure, which subsequently affects T/L following an acute shortage of the facilities. A study conducted in Kenya and Nigeria revealed that communities should be involved in maintaining schools in different ways and forms because this has a direct relationship with the availability and maintenance of School infrastructure and the performance of students (Hussein *et al.*, 2018; Sunday and Olayiwola, 2018).

The high number of students was rated by about 6 percent of all the respondents. In most of the schools, classes were overwhelmed as the rate of enrolment increased following the introduction of the free education agenda. If we view the enrolment rate at the national level, we notice that it has increased significantly from 14.6 percent in 1995 to 59.5 percent in 2013 (URT, 2014). All levels of education in the Tanzania education system are experiencing a high rate of enrolment; which poses a threat to resources. Buildings, chairs, tables, and other T/L facilities are wearing out and they need regular repair and rehabilitation to keep them serving their demands. Despite the government's provision of capitation grants, the high number of

students still poses threats to the maintenance of T/L facilities in schools and some of them need additional resources. The same situation – that overcrowded classes affect infrastructures and performance at school – was found in some schools in New York City in the USA (Rivera-Batiz and Marti, 1995).

Weak supervision from School Boards as a factor behind the lack of maintenance of teaching accounted for percent of all the respondents. It should be noted that Public schools are under the President's Office, Regional Administration and Local Government (PO-RALG). They are supervised by School Boards; which are mandated to prepare the respective schools' action plans and expenditure frameworks. They use capitation grants to run the school. Weak supervision has a direct influence on school maintenance and performance. Weaknesses of these might be fuelled by the lack of Board members' training, the absence of inventory auditing, and irregular inspections by top administration. On the same note, Mvuyekule (2017) found out that in Uvinza, Kigoma, training on the development and auditing and regular visits by site administrators and school administration personnel had a direct influence on school operations and performance in exams. The findings in both studies signify the need for regular training and seminars for members of the School Boards as leaders to keep them updated on their roles and responsibilities, and to ensure the schools are in good condition.

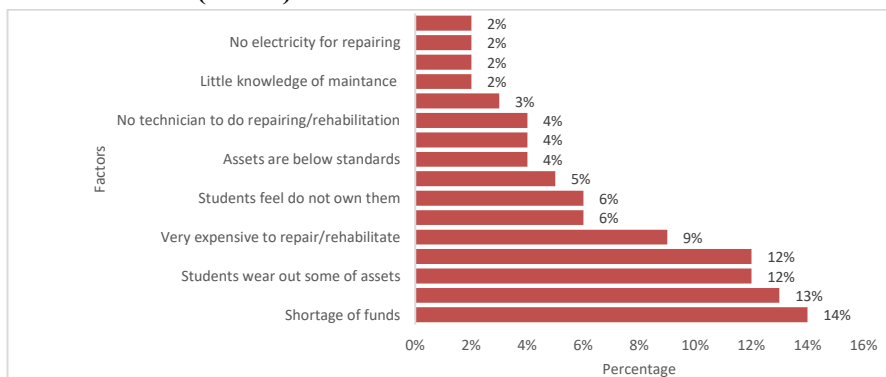
Political influence was another factor that influenced the culture of maintenance and rehabilitation in public secondary schools. This accounted

for 5 percent of the respondents. It was noted that politicians wield enormous influence in mobilizing resources for the betterment of the schools; however, their actions negatively affect school operations. They work for their voters to protect their political gains and interests. At least the data indicated that community members would agree to contribute or engage in supporting a school in whatever way but ward Councilors (WC) or members of parliament (MPS) tell their voters that education is free and hence no contributions of any kind should be made. The notion of free education is not used in 'good faith' by some politicians and as a result, it creates misunderstandings which in turn creates a gap. This diminishes cooperation between teachers, parents, and other stakeholders because teachers on one hand would like to involve parents and guardians in improving the school infrastructure through contributing in terms of cash or in-kind but other stakeholders such as councilors or MPs oppose such proposals. However, as this study noted, this mindset should be changed since the situation now calls for strategic interventions that will ensure infrastructure maintenance that will in turn ensure the smooth running of T/L. Due to their influence, politicians have direct impact on the culture of maintenance and rehabilitation. They can set priorities, putting education on top of the scale of preferences. It is indisputable that a conducive learning environment contributes to good school performance. Hussein et al. (2018) investigated the influence of the community on academic performance among secondary schools in the Garowe District in Kenya and found that micro-politics and politics have a direct impact on the schools' well-being and students' academic performance. Given the findings in different places, politicians have the

power to influence the culture of maintenance and rehabilitation of furniture and infrastructure in public secondary schools negatively or positively.

Furthermore, studies on school T/L facilities vary from different perspectives. The factors studied depend on the context of the study. The current study included a variety of factors to explore the details of the culture of public school maintenance. The study included the factors, of which the findings were rated in percentages as indicated in figure 1 below;

Figure 1: Factors Influencing Maintenance and Rehabilitation of T/L Infrastructure (n = 33)



Source: Computation from the Survey Data, (2019)

To get the details on the maintenance and rehabilitation of furniture and infrastructure in public secondary schools, we interviewed the heads of schools in all districts of Dodoma region. They explained a lot about the process of repairing and rehabilitation and how the leaders and politicians

have an influence on the process. The qualitative approach was used to enrich the study by getting more information on maintenance and rehabilitation.

The heads of schools were asked to explain the factors influencing the maintenance of both school furniture and infrastructure in public secondary schools. We randomly selected the respondents from the randomly selected schools. They explained varying factors across the districts in the region. For instance, the head of school from Chamwino District was quoted as saying:

“The availability of funds is the main issue that can influence the maintenance of school infrastructure. We entirely depend on the government capitation grant. There is, no support from parents and other stakeholders and this makes it very expensive to repair some of the T/L infrastructure. To repair all the furniture, we need a huge amount of money....”
(Head of school, November 2019).

Another Head of school in Bahi district was quoted as saying:

“The big number of students does not match the available school furniture and infrastructure. Overcrowded classes imply over the use of the available furniture and other infrastructure. Overcrowded classes encourage the wearing out of school infrastructure. We have broken chairs, and tables. There are cracks in buildings, ceilings, and

roofs as well as defects in electric and other fixtures due to the big number of students we have and the lack of repairs. The situation has a cost implication when it comes to school maintenance. Site visits by higher management and administration are very important to audit and see the actual situation at a particular school.” (Head of School, November 2019)

A Head of school from Chemba district said:

“Political influences affect the maintenance in a way that some politicians do not want to engage their voters in contributing funds for maintaining the T/L infrastructure. As the school and the Board, we may agree on how to repair mostly used furniture such as chairs, desks, and tables. For example, two parents may collaborate to buy or repair only one chair, table, or desk, but Ward Councilors take advantage of the policy of free education. We need training and seminars to enable us to have the same and common understanding of how best we can run our schools.” (Interview with head of school, November 2019).

In Kondo district one head of school was quoted as saying:

“Even though the government has been bringing capitation grants timely; the problem is the strictness

on how to use them. The amount allocated for school maintenance does not suffice the current demands. We request the government to rethink the allocations for school maintenance. Additionally, most of the members of the School Boards are villagers with limited education; they need regular training and seminars to keep them informed on their roles in the schools. Well informed leaders can help the government in school maintenance.” (Head of School, November 2019).

Heads of schools in Kongwa district explained varying factors. One head of school in the district said:

“Parents and guardians or the community are not fully involved in maintaining the school furniture and infrastructure. Parents involve themselves minimally, just by providing their children’s school needs. This habit is minimally attributed to cultural practices. Society does not value education; therefore, they don’t engage themselves in maintaining the infrastructure thinking that the items are not all that important. However, I think politicians can help in this because they have power in this area. If they decide, everything can be done.” (Head of School, November 2019).

In Kondo district one Head of School was quoted as saying:

“Some contractors/technicians take too long to make or construct new or repair the infrastructure. This delays the usability of infrastructure or furniture. For example, the construction of new toilets in this school has taken a long time. However, this delay is sometimes caused by delayed payments or weak supervision from the school board, or political interventions in the process. Both school and district leaders should monitor closely monitor the tenders awarded. Lack of training of village school board members has been affecting their performance. Most of them are not informed about their role, they pay no attention to school matters, and some demand allowances when called to discuss matters at school. Regular training may help them to have a vision.” (Head of School, November 2019).

Finally, we interviewed some heads of school in Dodoma City. One head of school was quoted as saying:

“The number and habits of students play a great role in the usability and durability of the furniture and other infrastructure. Ignorance and negligence of students about public property cost a schools a lot of money. Because classrooms are overcrowded, teachers fail to thoroughly monitor all furniture and other infrastructure.

We reinforce students' bylaws, we provide counseling and guidance to students to promote the safety of public property. All we call is for the government to construct new buildings and buy new furniture to meet the demands of the ever-growing student population.” (Head of School, November 2019).

The question and answers provided are in line with the study conducted in Kenya. The research employed quantitative and qualitative approaches. They found that holistic approaches are needed to make a school function properly. The most significant issue is that planning and budgeting should reflect the needs of a particular school. Again, the community is very important and should be engaged in the maintenance of school furniture and other infrastructure. They know each other from the family level and micro-politics. (Husein *et al.*, 2018).

The findings and discussions in both quantitative and qualitative are in line with the growing body of research in the past decades which links student achievement and behaviour to physical building conditions and overcrowding. The findings of the interviews conducted revealed that the lack and even shortage of furniture and infrastructure affects T/L and subsequently promotes failures in exams, and student absenteeism (OESE, 2000).

Experience and Organised Actions for Effective Maintenance and Rehabilitation of School Furniture and Infrastructure

To get details of the way forward, we asked the Heads of schools what they considered feasible and organised action for effective maintenance and rehabilitation of school furniture and infrastructure. The question was tackled through interviews with Head of Schools in seven (7) districts in the region. The study was intended to get details and a deep understanding of the feasible initiatives which can be taken to improve the conditions of the furniture and infrastructure available in schools.

The heads of schools in Bahi District emphasised the importance of maintaining school facilities. The work should not be left entirely to the government. He was quoted as saying:

“Close monitoring s of school infrastructure and immediate rehabilitation of the infrastructure are very important. Despite the little amount we receive from the government through capitation grants and by involving parents/guardians’ support, we can improve some T/L infrastructure. For example, through volunteering, parents/guardians can repair some of the damaged furniture and others may collaborate to make some chairs and tables/desks” (Head of School, November 2019).

Based on the information found in this quotation it can be argued that there is a need to establish good and close relationships between school boards and parents/guardians in the education system to maintain school infrastructures. Generally, the Government will have to provide capitation grants and other stakeholders need to play their role in supporting and ensuring that all school

infrastructures are kept in good condition to enable effective T/L . Given this context, community involvement is insisted. Close follow-up can be done by site administrators.

Another important point that was noted from the interview is close supervision. Technicians should be closely supervised when repairing, rehabilitating, or even constructing new school furniture or infrastructure. Regarding this, the head of school from Mpwapwa District said:

“To supervise technicians when repairing, the budget for rehabilitation should be clearly stated and be flexible to meet the demand at the time by making sure that technicians are paid in time when they complete the tasks.” (Head of School, November 2019).

Planning and budgeting are very important since the shortage of funds was reported as the main challenge which has been impeding the maintenance of T/L infrastructure among schools. The quotation above signifies the importance of having a strong school board to reinforce good planning at the school level. Proper allocation and monitoring of government funds should start from the grass-root to higher levels. Priorities should be carefully set by the respective School Board to meet the demand for the available funds and needs at a particular time. However, flexibilities on the proportions of capitation grants should be guaranteed.

Furthermore, transparency and timely communication and reporting of the situation of T/L facilities at schools to all stakeholders are very important for

immediate response. In this particular regard, the Head of School from Kondo District was quoted as saying:

“Sharing information with parents and the District Executive Director (DED) office on the infrastructures at the school through general/ parent meetings is of paramount importance. The DED office is informed by submitting an action plan and budget for the T/L infrastructure that needs repair. We normally give technical advice to the DED through the District Engineer on what and how should be done to ensure proper management of the school and its resources.”
(Head of School, December 2019).

The quotation above implies that communication between the government, school boards, and parents is very important to ensure that furniture and infrastructure among public secondary schools are in good condition. Communication and timely response will foster performance and increase accountability among leaders.

Furthermore, when T/L facilities are handed over to school management, there should be a model for assigning them: give a chair and table to each student by name and number and make close follow-ups or regular auditing to ensure the school property is safely kept. Students’ by-laws and parental guides will enhance a spirit of loving and taking maximum care of own and school properties for use today and tomorrow. On this particular observation the Head of school from Dodoma Town said:

“Students are encouraged to have a self-ownership spirit. Regular education on the protection and preservation of infrastructure should also be given to them. Any student who is caught damaging anything should be punished and the parent/guardian held responsible for repairing or bringing new material if possible. This means that users should feel the ownership of the material or anything used example chairs, tables and classrooms; and should ensure that they are kept safe....” (Head of School, December 2019)

Another argument was centred on the issue of collaborating with the student leadership to protect school property. Student leadership can serve as a link between school management and students. In this particular regard, the Head of School from Chemba District said:

“Students must take care of the tables and chairs and their leaders must supervise and report the safety of school property. Class teachers must lock the classes for protection; reinforce strict rules and regulations on proper use and regular maintenance even before they get more damaged to protect the T/L infrastructure from being destroyed.” (Head of School, December 2019).

The findings from the interview with the head of school from Chemba as highlighted above reveal a sense of having maintenance departments at schools; to be held responsible for auditing and reporting on the conditions of T/L facilities at a school. The department can serve as an advisory committee to the School Board on how to supply and maintain the school infrastructure. The department can provide education, guidance, and counseling to students on how to behave and properly keep the school T/L facilities. It will properly provide and reinforce the school policy on paying for repairing destroyed school property.

Almost the same thing was noted by the Head of School from Chamwino who said:

“The school should provide education by issuing all students clear school policies on protecting the T/L infrastructure like classrooms, chairs, and tables. The school should also have a maintenance department that will be responsible for smooth and efficient monitoring and in helping in the improvement of the quality of the school infrastructure.” (Head of School, December 2019).

From the findings above, it is reiterated here that there should be training on a strategic plan for the supply and availability of T/L facilities in government-owned schools. It was noted that even if maintenance were effective there was a shortage of chairs, tables, and classes. Sometimes some schools do not have some of the important T/L facilities such as laboratories,

chemicals, and apparatuses. The School Board comprises important people who can ensure adequate supply and availability of T/L facilities at a school. They should be trained on how to plan accordingly, how they can ensure monitoring and auditing of the school property. Their functions act as a bridge between the government, parents/guardians, school, and other stakeholders in education.

Adding on the same issue, the Head of school from Kongwa District was quoted as saying:

“Training of school board members is very important in creating awareness on the best ways to ensure the supply and availability of T/L facilities in a school. The Boards play significant roles in coordinating school activities. They can have strategic plans and share them with the District Executive Director’s (DED)’s office, parents/guardians, and other stakeholders to ensure that the school is well-equipped with all necessary T/L facilities for effective T/L. They can ensure timely repairing and even buying or making new T/L facilities.” (Head of School, December 2019)

Following the implementation of the free education policy, parents now feel that everything should be done by the government. However, the reality is that the government and parents have roles to play together. The government through the DED’s office, for example, can establish a “Mobile Repairing and Rehabilitating Unit”. Such a Unit will be coordinated from the district level and will be visiting or communicating with schools directly if any T/L

facilities require repairing or rehabilitation. The application of Information Communication and Technology (ICT) here is very important. The School Board can communicate with the head of the unit immediately when the needs arise. The unit can be responsible for supplying and availability of T/L facilities at competitive prices.

In response to this, the Head of School from the Kondoa District said:

“Despite the government’s implementation of the free education policy through capitation grants, we need to support it in different ways. We leaders need to be creative and come out with solutions to existing problems. Shortages of classes, chairs, tables, computers, and the lack of laboratories can be solved by creativity. We need to have a mobile repairing and rehabilitating unit or department just to make sure that T/L facilities are available in time and keep them safe for a long time. The unit will supply, maintain, and make sure all materials are available at a reasonable price.” (Head of School, December 2019).

Conclusion and Recommendations

This study has explored the factors which influence the maintenance and rehabilitation of furniture and infrastructure in government secondary schools in Dodoma region, Tanzania. Effective maintenance and rehabilitation among Public Secondary Schools in Tanzania create a conducive environment for learning and influence educational performance. Schools which have enough T/L facilities have and comfortable environment

for teaching and learning. They perform well in examinations because teachers and learners have a supportive teaching and learning atmosphere.

It was further observed that many schools have a shortage of T/L facilities and some other schools did not have some of the required facilities such as laboratories, computer and computer labs, photocopier machines, and printers to enhance teaching and learning. Given this reality, stakeholders should take action to address the problem by repairing, buying, and making new T/L facilities.

Although the culture of maintenance and rehabilitation is of paramount importance, the process is faced with several hurdles that impede the supply and availability of T/L facilities among government secondary schools. The factors that were noted include the shortage of funds, insufficient capitation grants from the government, damage by students and wearing out of school T/L infrastructure, expensive repair/rehabilitation, and the lack of support from parents and guardians. Others are a large number of students in a school, weak supervision from the School Board (leadership), lack of technicians to repair/rehabilitate the equipment and infrastructure, schools' receipt of below-standard assets, and lack of materials for repairing. The lack of electricity for repair, little knowledge on maintenance, irregular repair schedules for worn out/damaged school property, political influences, cultural practices and religious beliefs in some areas, and students' feeling that they do not own T/L infrastructures so they don't take care of them are the other factors.

The study recommends feasible action as a way forward towards the maintenance and rehabilitation of furniture and infrastructure in public secondary schools. These include parents'/guardians' participation to ensure the availability of T/L facilities, introducing education and students' bylaws, establishing maintenance units at schools, regular training and seminars to School Board members, and an increase in the proportion of capitation grants on school maintenance by the Government. Others are assigning chairs and tables to students by their names and identification numbers, regular auditing, site visiting and timely reporting of worn-out T/L facilities, allocation of maintenance funds by the DED's office, and establishing a strong Mobile Repair and Rehabilitation Unit (MRRU) which will coordinate and visit all schools in the region to ensure timely repair, rehabilitation and the making of new T/L facilities at a competitive price. Lastly, politicians should set education provision as a priority. Repairing and rehabilitation of school furniture and infrastructure should be given due weight to ensure the effective provision of education which is very crucial to take the country to the next level of development.

The current study, therefore, suggests the need for effective maintenance and rehabilitation of T/L facilities and instalment of ICT facilities, which were noted to be in shortage. Strong mentorship should be given to students and parents so that they take full ownership of the schools' property. We observed from the field that communities feel they are not responsible for anything regarding schools' T/L facilities due to the free education policy.

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