Available School Development Projects in Public Secondary Schools: An Explanatory Study in Sumbawanga Municipality, Tanzania

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ABSTRACT: This study explores the availability of school development projects in public secondary schools in Sumbawanga Municipality, Tanzania, from 2017 to 2023. This study was guided by Maslow's Hierarchy of Needs. This study used a quantitative approach to gather and analyze numerical data from a sample of 253 teachers in Sumbawanga Municipality, selected through simple random sampling. Data were collected using questionnaires and analyzed using descriptive statistics. The study revealed that teachers share a common understanding of school development projects, which enhances effective implementation and collaboration. Key infrastructure such as classrooms, toilets, and dining halls were found to significantly improve the learning environment, though challenges persist in areas like teacher housing and dormitories. To address these gaps, the study recommends increased investment in teachers' housing, expansion of dormitory projects, improved implementation of dining halls, and stronger collaboration among stakeholders to ensure the sustainability and success of future school development initiatives.

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1. INTRODUCTION

Public secondary schools serve as foundational institutions for nurturing learners and contributing significantly to the social and economic development of nations (OECD, 2013). In recent decades, there has been growing recognition of the need to improve educational infrastructure to ensure that schools offer quality education and foster a supportive learning environment. School development projects, ranging from classroom construction and library establishment to teacher housing and science laboratory installations, have emerged as vital strategies for promoting school sustainability, addressing infrastructure deficits, and enhancing educational outcomes (Nghambi, 2014).

Across Sub-Saharan Africa, including Tanzania, various school-based development projects have been implemented to respond to challenges such as overcrowded classrooms, lack of learning materials, and poor teacher retention in rural areas. For instance, classroom construction and renovation initiatives, supported by both governments and development partners, have helped to reduce overcrowding and improve the learning experience (World Bank, 2020). Projects such as the African Library Project have provided access to reading materials and contributed to literacy development, while STEM-related laboratory projects have enhanced student engagement in science and innovation (African Library Project, 2024; African Development Bank, 2019).

Additionally, teacher housing initiatives have played a pivotal role in addressing retention issues, especially in underserved and remote communities. In Ghana and Tanzania, public sector-led housing projects have been instrumental in improving teacher welfare, ensuring their stability and continued presence in rural schools (Ghana Education Service, 2024; Ministry of Education and Vocational Training, 2016). These efforts align with broader educational goals aimed at improving equity, access, and the quality of education through infrastructure investment.

However, despite the potential benefits of such initiatives, the implementation of school development projects in many African contexts, including Tanzania, faces significant challenges. Insufficient funding, bureaucratic delays, weak financial management capacity, and corruption have often undermined project outcomes and sustainability (Bridges & Walls, 2018; Oketch & Somerset, 2010; Chikoko & Mthembu, 2020). These constraints highlight the importance of examining the effectiveness and limitations of existing development projects within public secondary schools.

Therefore, this study seeks to provide an explanatory analysis of available school development projects in public secondary schools in Sumbawanga Municipality, Tanzania.

1.1 Objectives of the Study
  i.   To determine the understanding of the term school project among teachers in public secondary schools in Sumbawanga Municipality.
  ii.   To identify the types of development projects implemented in public secondary schools in Sumbawanga Municipality on the period between 2017 and 2023.

2. LITERATURE REVIEW

This study was guided by Maslow's Hierarchy of Needs. This theory was proposed by Abraham Maslow in his 1943 paper, "*A Theory of Human Motivation*." Maslow was a psychologist who believed that human motivation is driven by a series of hierarchical needs. His theory posits that individuals are motivated to fulfill basic needs before advancing to higher-level needs. The hierarchy is often depicted as a pyramid, with each level representing a different set of needs as presented in Figure 1 below.

Figure 1: Hierarchy of Needs
Source: Modified from Maslow (1954)

From Figure 1, Maslow's theory is grounded on the following principles:
  i.   **Physiological Needs**: These are basic life-sustaining requirements, such as food, water, and shelter.
  ii.   **Safety and Security Needs**: Once physiological needs are met, individuals seek security, safety, and stability in their environment.
  iii. **Love and Belongingness (Social Needs)**: After safety needs are met, humans desire relationships, affection, and a sense of belonging.
  iv.   **Esteem Needs**: At this level, individuals seek respect, recognition, and self-esteem, both from others and themselves.
  v.   **Self-Actualization**: This is the pinnacle of Maslow's hierarchy, where individuals strive for personal growth, creativity, and the realization of their full potential.

These five levels represent a progressive pattern of human needs, where each level must be addressed before moving to the next.

Maslow's Hierarchy of Needs offers several strengths, including its universal application across fields such as education, psychology, and business, making it a valuable tool for understanding students' motivational drivers and improving school project design (Maslow, 1943). The theory's holistic approach considers physical, emotional, and psychological needs, ensuring the development of individuals in all aspects (Maslow, 1943). Furthermore, by addressing needs at each level, the framework facilitates the empowerment of students, promoting personal growth, improving student performance, and fostering a positive learning environment (Maslow, 1943).

Maslow's Hierarchy of Needs has several weaknesses, including its rigid structure, which assumes that needs must be fulfilled in a strict hierarchical order, whereas people often pursue multiple needs simultaneously or prioritize them differently based on individual circumstances (Maslow, 1943). Additionally, the model is criticized for its cultural bias, as it was developed primarily in Western individualistic contexts, limiting its applicability in collectivist or non-Western cultures like Tanzania (Miller, 2016).

Furthermore, critics argue that the theory oversimplifies human motivation, failing to account for complex factors such as socio-economic status, personal values, and cultural influences (Kenrick et al., 2010).

Maslow's Hierarchy of Needs is relevant for assessing school projects in Sumbawanga Public Secondary Schools because it helps evaluate how well projects address basic needs like infrastructure and safety, foster social connections and esteem through peer relationships, and promote self-actualization through creativity and independent learning. Additionally, it aids in understanding the alignment of projects with both individual and community needs, as well as their sustainability by considering the long-term impact on student outcomes and overall educational quality.

3. METHODOLOGY
3.1 Research Approach
This study used mixed research approach basing on convergent mixed method design. The convergent mixed method research design is a type of research method in which it involves collecting and analyzing both qualitative and quantitative data simultaneously (Taherdoost, 2022). In this design collection and analysis of quantitative data is done first and then follow the results up with qualitative phase to explain initial quantitative results in more depth. Therefore, this design was used to collect both types of data, which helped to answer the research questions.

3.2 Targeted Population
The target population of the study was 563 teachers from 19 public secondary schools in Sumbawanga Municipality.
3.2 Sample Size and Sampling Techniques
The sample size for this study was 253 teachers. This sample size was computed by the proposed formula of Yamane (1967) as presented below:

$n = N / [1 + N(e)^2]$

Where: n = Sample Size;
                N = Target Population; and
                e = Level of Precision (0.05 / 5%).

Simple random sampling was used to select teachers as to ensure that every teacher in the target population had an equal chance of being included in the study. This technique was preferred since it reduces selection bias and enhances the findings' generalizability.

3.3 Data Collection Instruments
Data collection involves gathering information to support or refute specific facts (Kothari, 2004). This study used questionnaires for data collection. Questionnaires with closed-ended questions were utilized in collecting data from teachers as to gather uniform and quantifiable data efficiently.

3.4 Data Analysis
Ott and Longnecker (2010) defines data analysis as a process involving a series of related operations aimed at summarizing and organizing collected data to answer research questions. In this study, data were systematically organized using the SPSS, which facilitated data organization and simplified the presentation of results through charts and graphs (Mugenda & Mugenda, 2003). Quantitative data were analyzed and coded using descriptive statistics, with findings presented in tables and percentages.

4. RESULTS AND DISCUSSIONS
4.1 Understanding on the Term School Project
Table 1: Understanding on the Term School Project

S/No.	Understanding on the Term School Project	Frequency	Percentage
1.	Yes	198	78.2%
2.	No	55	21.8%
Total		253	100%

Source: Field Data (2024)

The study findings show that 78.2% of surveyed teachers in Sumbawanga public secondary schools agree with the term "school project" indicating a shared understanding of its meaning. This shared perception is essential for effective communication and collaboration in project implementation. When teachers clearly understand the concept, they can actively contribute to the planning, execution, and evaluation of school projects, increasing the likelihood of successful outcomes.

4.2 Types of School Projects
Table 2 below present results on the types of projects that has been implemented in public secondary schools from 2017 to 2023 in Sumbawanga Municipality.

Table 2: Types of School Projects

S/No.	Types of School Projects	Frequency	Percentage
1.	Classroom	219	93.6%
2.	Toilets	161	68.8%
3.	Dining hall	125	53.4%
4.	Laboratory	167	71.3%
5.	Teachers houses	71	30.3%
6.	Dormitories	13	48.2%

Source: Field Data (2024)

4.2.1 Class Building project

The study reveals that 93.6% of surveyed teachers agree that class building was a key project implemented in Sumbawanga. This high level of agreement underscores the importance of infrastructure development in creating conducive learning environments. Adequate classroom facilities help address overcrowding and improve teaching and learning conditions. These findings align with Nakhumicha and Macharia (2017), who emphasized that improving school infrastructure, particularly classroom construction, is vital for enhancing the education system.

4.2.2 Toilets

The study shows that 68.8% of respondents agreed that toilets were implemented as a school project in Sumbawanga Municipality, reflecting a positive perception of the initiative. This indicates that the project successfully addressed a critical need, ensuring proper hygiene and improving students' well-being. These findings align with Mbele (2011), who emphasized the government's responsibility to expand toilet facilities to meet the National Building regulation ratio of 1:25 users per toilet. Similarly, Carvalho et al. (2021) highlighted the importance of interactive planning and collaboration for successful school projects, such as constructing toilet facilities.

4.2.3 Dining Halls

The findings indicate that 53.4% of respondents agreed that dining halls were implemented as a school project in Sumbawanga Municipality. While this suggests some progress, the percentage is insufficient to conclude that dining halls were implemented in all twelve sampled schools. This indicates that many secondary schools are still lagging behind in building dining halls, which are essential for improving students' welfare and overall school experience.

4.2.4 Teachers Houses

The findings indicate that only 30.3% of respondents agreed that teachers' houses were implemented as a school project in Sumbawanga Municipality, reflecting a low level of acceptance and mixed perceptions. These results align with Lawrent (2020), who found that newly built schools in Tanzania face a shortage of teachers' housing. The low agreement suggests challenges in implementing teachers' houses, possibly related to cost, infrastructure, or project prioritization. Addressing these concerns could help improve the provision of teachers' housing.

4.2.5 Laboratories

The findings indicate that only 30.3% of respondents agreed that teachers' houses were implemented as a school project in Sumbawanga Municipality, reflecting a low level of acceptance and mixed perceptions. These results align with Lawrent (2020), who found that newly built schools in Tanzania face a shortage of teachers' housing. The low agreement percentage suggests challenges in implementing teachers' houses, possibly related to cost, infrastructure, or project prioritization. Addressing these concerns could help improve the provision and perception of teachers' housing in Sumbawanga public secondary schools.

4.2.6 Dormitories

The findings indicate that 48.3% of respondents agreed that dormitories were implemented as a school project in Sumbawanga public secondary schools from 2017 to 2023. These results align with Mgimba and Mwila (2022), who found that inadequate infrastructure, including dormitories, contributed to poor student performance in rural public secondary schools in Iringa District. While a significant portion of respondents acknowledged the importance of dormitories in providing a safe and supportive environment, the notable percentage of disagreement suggests that challenges remain, requiring further attention to enhance the dormitory project's implementation and perception.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The study conducted in public secondary schools in Sumbawanga Municipality from 2017 to 2023 revealed that teachers generally have a common understanding of school development projects, which supports effective implementation and collaboration. The findings highlight the importance of infrastructure projects such as classrooms, toilets, and dining halls in enhancing the learning environment. However, challenges remain in areas like teacher housing and dormitories, which received mixed perceptions and indicate a need for further attention to create a more supportive educational setting.

5.2 Recommendations

The study recommends increasing investment in teachers' housing to address identified gaps and improve teacher welfare. It also suggests expanding dormitory projects to better support student needs and improve perceptions of their importance. Improving the implementation of dining hall facilities should also be prioritized to enhance student well-being. Lastly, strengthening collaboration among stakeholders, including government, schools, and communities, will ensure the successful and sustainable execution of future school development projects.

REFERENCES

1. African Development Bank. (2019). Project for Support to Skills Development and Youth Entrepreneurship in Growth Sectors. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Senegal-AR-Project_for_Support_to_Skills_Development_and_Youth_Entrepreneurship_in_Growth_Sectors.pdf

2. African Library Project. (2024). How it works. Retrieved from https://www.africanlibraryproject.org/how-it-works

3. Bridges, B., & Walls, N. (2018). *Migration, displacement and education*. United Nation: UNESCO Publishing.

4. Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research*. SAGE Publications.

5. Ghana Education Service. (2024). Teachers' accommodation. Retrieved from https://www.ges.gov.gh/index.php/teachers-accommodation

6. Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Age International Publishers.

7. Mbele, M.N. (2011). *Evaluation of toilet facilities at public schools in the Matlosana Local Municipality's area of jurisdiction* (Mini-dissertation, North-West University).

8. Ministry of Education and Vocational Training. (2016). Primary Education Development Plan (PEDP) 2016-2021. Retrieved from https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/tanzania_primary_education_development_plan_2016-2021.pdf

9. Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Acts Press.

10. Nghambi G.H. (2014). Factors Contributing to Poor Academic Performance in Certificate of Secondary Education Examination for Community Secondary Schools in Urambo District, Tabora, Tanzania.

11. OECD. (2013). The Future Of Education And Skills: Education 2030. Retrieved from https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

12. Oketch, M. O., & Somerset, H. A. (2010). *Free primary education and after in Kenya: Enrolment impact, quality effects, and the transition to secondary school*. Falmer: Consortium for Research on Educational Access, Transitions and Equity.

13. Ott, R. L., & Longnecker, M. (2010). *An Introduction to Statistical Methods and Data Analysis* (6th ed.). Brooks/Cole.

14. World Bank. (2020). Ethiopia: New classrooms contribute to improved learning outcomes. Retrieved from https://www.worldbank.org/en/news/feature/2020/02/10/ethiopia-new-classrooms-contribute-to-improved-learning-outcomes

15. Yamane, T. (1967). *Statistics: An Introductory Analysis* (2nd ed.). Harper & Row.