

Contribution of the school feeding program on enhancing students' learning in public secondary schools in Misungwi District, Tanzania

Mabula, Pili ✉

St. Augustine University of Tanzania, Tanzania (mabulapili@gmail.com)

Mkulu, Demetria

St. Augustine University of Tanzania, Tanzania

Tangi, Felista

St. Augustine University of Tanzania, Tanzania



ISSN: 2243-7703

Online ISSN: 2243-7711

OPEN ACCESS

Received: 22 August 2026

Available Online: 20 September 2026

Revised: 1 September 2026

DOI: 10.5861/ijrse.2026.26409

Accepted: 19 September 2026

Abstract

The school feeding program (SFP) is an important aspect of improving students' learning outcomes. However, the contribution of SFP on enhancing students' learning in public secondary schools in Misungwi District, Tanzania, is currently not known. This study aimed to identify the contribution of SFP on enhancing students' learning in public secondary schools in Misungwi District-Tanzania. The study was guided by Maslow's Hierarchy of Needs Theory, founded by the theorist Abraham Maslow in 1943. A mixed research approach and a convergent parallel design were employed. A sample size of 196 selected from 8829 target population was used where probability and non-probability sampling techniques were employed to select participants. Questionnaires and Interview guides were used to collect both quantitative and qualitative data. The validity of the research instruments were checked by different research expertise while the reliability of the research instruments was checked using split-half technique where the correlation coefficient was 0.73. Quantitative data were analyzed through descriptive statistics with the help of Statistical Package for Social Science (SPSS) version 23 while Qualitative data were analyzed thematically. The results also indicated that SFP contributes to reduced students' truancy and drop-out, enhanced students' academic performance, and increases students concentration in the learning process. In conclusion, SFP is crucial in schools because it supports the educational journey of students, nurtures broader social growth, and contributes to their academic success. The study recommended that continued government through Ministry of Education Science and Technology support for financial policies and guidelines is required for effective SFP implementation and the provision of quality education.

Keywords: school feeding, feeding program, learning, public secondary schools

Contribution of the school feeding program on enhancing students' learning in public secondary schools in Misungwi District, Tanzania

1. Introduction

The enrichment of quality education, especially for students in public secondary schools, is an essential requirement for the future development of a person and the nation at large. One of the aspects that contribute to the provision of excellent education in the country is the donations of food to children at schools. In 2011, the Food and Agriculture Organization of the United Nations defined SFP as a means to enable students to attend school. Developed countries such as the United States, Japan, and the United Kingdom have implemented SFPs for many years, benefiting millions of children (Zenebe, Gebremedhin, Henry, & Regassa, 2018). SFP implementation varies from nation to nation, but there are two primary kinds that can be distinguished depending on their strategies. Students are fed while they are in class in the first group, and families are provided with food through the second group, known as take-home rations, if their children attend school. SFPs are a widely favored kind of social assistance, offering daily meals to around 368 million children (World Food Program, 2013; referenced in Webb, Boyd, Pee, Lenters, Bloem & Schultink (2014).

Globally, SFPs have a long history as social protection programmes and had their start in the 1930s with the introduction of milk schemes in the UK and the US, which had the specific goal of enhancing children's growth (Richter, Griesel, & Rose, 2000). In the UK, a programme began in 1934 and went on until 1944 to give free milk to kids in school (Baker, Elwood, Hughes, Jones, & Sweetnam, 1978). In the late 1960s and early 1970s, school food programmes only helped kids who were considered to be mostly poor (Baker et al., 1978). In the early 1940s, South Africa started giving free milk to both white and black schoolchildren. In the same way, China started a wide range of SFPs in the 1970s and 1980s (Afroze, Mia, & Majumder, 2013). These meals were either fully paid for or provided at no charge.

The idea of SFPs was developed in the late 19th century in Europe on a school-by-school basis because of the prevalent poverty and hunger (Stefan, Therese, Jan, Michael, & Sandra, 2014). The introduction of a SFP in the European Union (EU) became a significant issue since it improved students' attendance while addressing social and environmental issues, such as childhood obesity and food insecurity (Picken, Bruckmayer, & Flemons, 2021). This showed that school meals have been served to students for more than a century in various forms and for a variety of purposes all across the world.

The Kenyan government established the Home Grown School (HGS) Meals programme as part of the effective gradual transfer by the WFP; complete government adoption was planned in 2019 (Musolo, 2020). Musolo also highlights that the School Nutrition and Meals Strategy is guided by a number of Kenyan laws and policies, among them the Food and Nutrition Security Policy of 2011. The SFP covers different levels of education in Kenya with the aim of increasing enrolment and reducing absenteeism in schools. This shows that the SFP has an effect on the growth of students in schools and the development of their learning abilities. Apart from Ethiopia, Nigeria, Kenya, and Rwanda, other countries in Africa, such as Malawi, Botswana, Zambia, and Lesotho, to mention a few, are implementing SFPs in which the students benefit from these programmes.

In Tanzania, SFP was originally implemented in the 1950s during the colonial era, but it was quickly expanded under local government control following Tanzania's independence to include midday meals and health services, including screening and first aid (Missan, 2011). However, according to WFP (2004), a time after independence, this SFP started to lose its appeal as a result of changing socio-economic policies at the micro level. The Tanzanian government has expressed concern over the health and nutritional state of students in school because it is aware that there is a link between nutritional status and in-school attendance (Sanya, 2015).

Tanzania's MoEST and WFP work to support SFP in some locations where students receive porridge for breakfast and lunch. Several government-run schools began implementing SFP, and the pilot zones for the effort were chosen to be in the areas of Arusha, Dodoma, and Singida in 2000 (Sanya, 2015). SFP has been active in various regions and districts in Tanzania, for instance, Tarime District in Mara Region, where the programme has been financed by the U.S. Department of Agriculture (USDA) and maintained by stakeholders through multiple sectors involving the government of Tanzania ministries at all levels, and Bahi District in Dodoma Region (Nemes, 2018). In 2021, the WyEST released the National Guidelines for the Provision of Food and Nutrition Services for Students at Schools (NGPFS), with the goal of guiding administrators, implementers, and stakeholders in the best way to participate in, manage, implement, and improve the provision of food and nutrition services for students at schools with the intention of meeting the aims of the Educational and Training Policy of 2014 (WyEST, 2021). The implementation of school feeding and nutrition services in schools is based on the Health Policy of 2007, the Policy Guidelines on Schools Health Services in Tanzania 2018, the Education and Training Policy of 2014. The programme was to be implemented in all public and private schools in the whole country of Tanzania. Misungwi was among district in Tanzania that responded to the national guideline for the provision of food services for students at schools.

However, Misungwi district responded to the NGPFS for students at schools raised by the Ministry of Education, Science, and Technology in 2021 (WyEST, 2021) and stated in the Education and Training Policy 2014 (URT, 2014) that Misungwi District is among the districts in Tanzania that have been implementing school feeding programmes even before the NGPFS was launched. The food was provided in schools with large farming areas for only a short time during a harvest season in the 1990s, especially in primary schools where porridge, boiled sweet potatoes, boiled cassava, and rice with beans were delivered to students. Later, the programme was advanced and started including secondary schools throughout the academic years in the 2000s in Misungwi District (DED, 2022). Regardless of all the initiatives taken by the government, students in Misungwi District are not performing well and this has been indicated by the NECTA results of 2019-2022. Therefore, this has encouraged the researcher seek to understand the contributions of school feeding program on enhancing students' learning in public secondary schools specifically in Misungwi District in Tanzania.

Statement of the Problem - Globally, it has been stated that SFP plays a vital role in schools (Picken et al., 2021; Richter et al., 2000). It promotes high enrollment, students' retentions, improves academic performance and mental health for students. The Tanzanian government has made initiatives to ensure provision of quality education in all schools. Also, the Ministry of Education, Science and Technology has launched the national guidelines for the provision of food and nutrition services for students at schools in 2021, which have been stated clearly by the Education and Training Policy 2014. Despite all the initiatives taken by the Government the academic performance of students in Misungwi District is still not promising. This raised a question whether the provision of food to students in Misungwi district meets the intended educational goals in the provision of quality education in all schools in Tanzania. In this regard, the researcher was interested to find out the contributions of SFP on enhancing students' learning in public secondary schools in Misungwi District-Tanzania.

2. Literature Review

2.1 Theoretical Literature

This study was guided by Maslow's Hierarchy of Needs, which was first introduced by the American psychologist, Abraham Maslow in 1943, who noted that human decision-making is influenced by a hierarchy of psychological demands (Maslow, 1943). Maslow categorized human needs into five distinct groups: physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. These needs are arranged in order of increasing significance, with physiological needs being the most fundamental and self-actualization needs having the greatest level of importance (Abulof, 2017); (Hopper, 2020); (Lukindo, 2018); and (McLeod, Johnson Jr, Cryer-Coupet, & Mincy, 2019). The study concentrated on the physiological level of human needs. Maslow's

physiological needs include food, water, shelter, and clothes. According to Maslow, food is considered the basic physiological need, and higher-order needs can only be achieved when the basic need is met. The use of this theory was justified because it addresses the study's specific objectives, which also include identifying public secondary schools implementing SFPs, determining the kinds of meals provided to students, and finding out the significance of SFPs in enhancing students' learning in public secondary schools. In educational settings, nutrition is viewed as the most significant of the five fundamental human requirements. It is implied that providing meals before educational activities is necessary for instructors and students to focus throughout their studies, particularly in a classroom setting.

2.2 Empirical Literature Review

Contributions of school feeding program on enhancing students' learning - Several empirical studies have been conducted to determine the influence of school food efforts on enhancing students' learning progress in public secondary schools. In addition to reducing short-term hunger in the classroom so that students can focus on learning activities, SFP also encourages pupils to enroll and stay in schools. Adekunle & Christiana (2016) also performed a study in Osun State, Nigeria, to investigate the impacts of SFP on students' enrolment, retention, and academic achievement. The survey research design was utilized to obtain data for the study. According to the study's findings, SFP boosted students' enrollment, retention, regularity, and punctuality in school. This implies that the SFP increased learners' educational and extracurricular performance in schools.

In 2020, Musolo in Kenya examined SFP as strength for increasing performance and retention levels in schools. It was an in-depth analysis of the HGS Meal Programme in which a mixed research approach was used with the use of a case study research design. The study emphasizes the participation of the government in supporting SFP in order to ensure the sustainability of the program. Therefore, this implies that SFP should be implemented, managed, and improved in schools to promote enrollment and retain students in order to enhance learning improvement in schools.

On the same line, the study by Lukindo (2018) in Tanzania on how SFP contributes to students schooling, particularly in Monduli District, in which qualitative research design was applied with semi-structured interviews and observation as data collection tools, observed that the provision of food in schools makes students active in the learning process. This shows that food is important to students in facilitating the learning process. Moreover, the study was carried out by Sanya (2015) in Tanzania with the intention of describing the efficacy of SFP. The study used a survey and case study design and was more qualitative in nature. The study discovered that SFPs are successful at attracting students to enroll in classes. This suggests that both parents and teachers were eager to support and contribute to the provision of school meals. Similarly, Chaula (2015) performed research to evaluate the impact of SFP on students' level of enrollment, attendance, and academic achievement. To do this, the study used a mixed research approach and a descriptive design. The results demonstrate that SFP has improved academic achievement, attendance, and enrollment. This entails that SFP, creates a better way of enhancing students learning hence high students' academic performance in secondary schools.

3. Research Methodology

Research Approach - The researcher employed a mixed research approach that involved collection, analysis, interpretation, and reporting of both qualitative and quantitative data in a single study (Creswell, 2014); (Shorten & Smith, 2017). The researcher employed a mixed research approach to gain a deeper understanding of the study problem because each approach has strengths and weaknesses, so combining them helped to reduce the bias of each other.

Research Design - A converging parallel mixed research design was used in this investigation, which assisted the researcher in assembling both quantitative and qualitative data concurrently, analyzing them separately, and then combining them in interpretations. The researcher employed this design because it allowed them to collect

data at a single point in time for each sample (Christensen, Johnson, Turner, & Christensen, 2011). The sample size included 196 total respondents, which involved 5 ward educational officers, 6 heads of schools, 68 teachers, and 99 students selected from the total population of 8829. The sample size was convenient as it provided the needed information for the study.

Study Area and Rationale - This study was conducted in Misungwi District, Mwanza Region of Tanzania. Misungwi District is one among of the eight districts in Mwanza Region named Buchosa, Ilemela, Kwimba, Magu, Nyamagana, Sengerema, and Ukerewe districts. Misungwi is typically spelt with additional's' making it "Missungwi" (URT, 2021). According to the census of 2022 Misungwi District has the population of 467,867 people (NBS, 2022). The research was conducted in Misungwi district because there are public secondary schools that have been implementing school feeding program but students' academic performance was still not promising on the summative evaluation to the O-level students in the year 2019 – 2022 NECTA results. Hassani (2016) and Maijo (2018) asserted that, the provision of food to students in schools increased school enrollment, reduce absenteeism, improved academic performance and mental health to students.

Sampling technique - The researcher used both probability and non-probability sampling techniques, where students were chosen as respondents by stratified sampling technique and a simple random sampling technique only as a part of probability sampling technique was employed in selecting teachers as participants in the study. It is argued that, using the probability sampling technique, each sample in a population has an equal chance of being picked. The researcher employed the purposive sampling technique as part of non-probability sampling only to involve participants who are preferred by the researcher to be selected purposively because they are likely to possess the required information as per the study's objectives (Patton, 2002). Therefore, WEOs and heads of schools were sampled using purposive sampling as respondents for the study on the effect of SFP on enhancing students' learning in public secondary schools in Misungwi District.

Research Instruments - The researcher used questionnaires and an interview guide. The researcher selected to employ questionnaires because the respondents may readily complete surveys at a time and location that works for them (Gray, 2021). The questionnaires also included a Likert scale, open-ended questions, and closed-ended questions. The researcher distributed questionnaires to teachers and students. The researcher employed semi-structured interviews in order to get in-depth data and investigate more information from the respondents, which are heads of schools and WEOs (Gray, 2021); (Singh, 2006). The heads of schools and WEOs were interviewed because they have access to vital information about schools.

Validity and Reliability of the instruments - To determine the validity of the study instruments, the researcher employed content and face validity. The split-half technique was employed to test the reliability of the research instruments. The correlation coefficient of the instruments was calculated with the help of Statistical Package for Social Science (SPSS) version 23, and a correlation coefficient of 0.73 and 0.72 indicated that the instruments were reliable. In the qualitative approach, validity and reliability were observed by the researcher, who was the main tool in qualitative research; hence, trustworthiness of qualitative research tools involved the credibility, transferability, dependability, and conformability of research tools for data collection (Allen, Scott, Tracy, & Crowe, 2013); (Creswell, 2014); (Lincoln & Guba, 1985).

Data collection procedures - The researcher has an introductory letter from St. Augustine University of Tanzania (SAUT) introducing a researcher to the respondents. Morality and respect to participants provided the information to the study was fairly preserved. In addition, the researcher observed confidentiality of information provided by the respondents and also ensured anonymity. The field note book was made available prior to data collection. The quantitative was directly recorded on the space provided in the questionnaires when respondents filled their responses, while qualitative data were collected through interviews was recorded using a field note book.

Data Analysis Procedure - Quantitative data were analyzed using descriptive statistical methods. According to Vetter (2017), descriptive statistical analysis is a specialized technique primarily used to compute, characterize,

and summarize research data in a way that is efficient, logical, and relevant. The researcher revised, summarized, and got new data ready for analysis. In this study, frequencies and percentages were used to present the quantitative data, which were displayed using tables and bar charts with the aid of SPSS version 23. Qualitative data were analyzed thematically. Thematic analysis is a method for analyzing qualitative data that focuses on spotting and elaborating on key themes within the data (Castleberry & Nolen, 2018); (Kiger & Varpio, 2020). The researcher organized the data or information collected in order to clean it up and review it by reading it several times to get a sense of what it contained. Also, the researcher coded or categorized the data, reviewed those codes, combined them into themes, and finally presented those themes.

4. Findings and Discussion

4.1 The contribution of the school feeding program to enhancing students' learning

The study intended to identify the contributions of the school feeding program on enhancing students' learning in public secondary schools at Misungwi district. In order to get more information from the respondents, the researcher provided a Likert scale question where the researcher asked respondents to state their position and the rating scales were SD (strongly agree), D (disagree), M (moderate), A (agree) and SA (strongly agree). The responses were as shown in table 3

Table 3
Students Responses Contributions of school feeding program (n=99)

Students Responses Contributions of school feeding program (n=99)											
Statement	Response										Total
	SD		D		M		A		SA		
	F	P	F	P	F	P	F	P	F	P	
Increases concentration in learning process.	6	6.1	5	5.1	8	8.1	45	45.1	35	35.1	99
Reduces truancy and drop-out	15	15.2	7	7.1	12	12.1	22	22.2	43	43.4	99
Maintains good communication	9	9.1	7	7.1	4	4.0	38	38.4	41	41.4	99
Poor academic performance.	28	28.3	46	46.5	18	18.2	3	3.0	4	4.0	99
Made remedial class practice possible	3	3.0	2	2.0	10	10.1	30	30.3	54	54.5	99

Source: Field Data (2023)

Table 3 indicated that most of the respondents reported that 80.2 percent agreed that SFP increases students' concentration in the learning process, while 65.6 percent agreed that SFP reduces truancy and drop-out. Also, 79.8 percent of respondents agreed that SFP encourages good communication among teachers and students in schools. Again, 74.8 percent of the respondents disagreed that SFP enhanced students' poor performance, and 84.8 percent of the participants agreed that the school feeding program made remedial classes possible. This signifies that these factors contributed to enhancing students' learning in public secondary schools. This implies that when the school feeding program is well supported and managed, it can lead to students' learning improvement in public secondary schools. The findings are in line with Sanya (2015), who argued that the school feeding program needs support from various stakeholders like the government, parents, communities, and other donors to display its contribution; without this support, the program's results might not be identified, hence low students' learning improvement. Moreover, in order to obtain more information concerning the contributions of SFP, the researcher provided a Likert scale question to teachers. The results are displayed in Table 4.

As indicated in Table 4, most participants reported that SFP enables corrective class practices 91.5 percent agreed, low academic performance 81.9 percent disagreed, enables students' concentration in learning 92.6 percent of the respondents agreed, decreases student truancy and drop-out rates 89.1 percent of the respondents agreed, and leads to poor cooperation among teachers and students. 97.5 percent disagreed with the contributions of the school feeding program to enhancing students' learning in public secondary schools in Misungwi District. This implies that teachers in public secondary schools are aware of the contributions of school feeding program to enhancing learners' learning in public secondary schools in Misungwi district. These findings are in line with those

of Iddrisu, Gunu & Abdul-Rahaman (2022) in Ghana, who argue that teachers have a strong expectation of increasing the attendance and academic performance of students in public secondary schools.

Table 4

Teachers' Response on Contributions of school feeding program (n=83)

Teachers' Response on Contributions of School Feeding Program (n = 83)											
Statement	Response										Total
	SD		D		M		A		SA		
	F	P	F	P	F	P	F	P	F	P	
Enables corrective class practice.	-	-	2	2.4	5	6.0	42	50.6	34	40.9	83
Low academic performance.	44	53.0	24	28.9	12	14.4	3	3.6	-	-	83
Enables concentration in learning.	-	-	2	2.4	4	4.8	37	44.5	40	48.1	83
Decreases truancy and drop-out.	-	-	-	-	9	10.8	46	55.4	28	33.7	83
Leads to poor cooperation	53	63.8	28	33.7	2	2.4	-	-	-	-	83

Source: Field Data (2023)

From the results in Table 3 and 4, it is implied that students and teachers in public secondary schools are aware of the contributions of school feeding programs to enhancing learners' learning in public secondary schools in Misungwi district. This finding is in line with those of (Iddrisu et al., 2022) in Ghana, who argue that teachers have a strong expectation of increasing the attendance and academic performance of students in public secondary schools. Additionally, data from Table 4 shows that 91.5 percent of the respondents agreed that the implementation of a school feeding program in public secondary schools enables corrective class practice to enhance learning improvement for students. This result implies that if SFP is improved, it will pave the way for the enhancement of corrective classes, which will help students improve their learning in different subjects. In supporting this, the researcher quoted one of the interviewees, who asserted that:

The school feeding program helps a lot with academic improvement. For example, the results of the students in 2021–2022, who were selected to join A-level studies, increased in number. This is due to the provision of food, especially for students preparing for their final examination (Interviewee D1, July 2023).

Therefore, this suggests that one of the strategies to be employed in public secondary schools that can help foster learning improvement is the implementation of SFP, in which the government, through the Ministry of Education Science and Technology, is insisting on its national guidelines for the provision of food and nutrition services for students at schools to implement the program in all its schools (WyEST, 2021). This finding concurs with Maslow's Hierarchy of Needs Theory of 1943; which maintains that the lower needs must be met before delivering the higher needs. This implies that basic human needs like food and water are one of the motivations that lead learners to be more comfortable in the learning process. Therefore, foods must be distributed to motivate students to concentrate on the teaching and learning process, enhancing students' learning in public secondary schools in Misungwi District. Moreover, 81.9 percent of the respondents agreed that the provision of food in schools decreased truancy and dropout in public secondary schools in Misungwi district. This implies that the majority of the respondents are aware of the contributions of school feeding programs that increase students' attendance in schools. The researcher has quoted one of the interviewees, who said that:

In my school, the implementation of SFP has made students remain at school, especially Form 4 students who are preparing themselves for the final examination. Due to the fact that most of the students come far from the school, it's not easy for them to go back for lunch at home and come back to school for the afternoon classes, but students remain at school and continue with class lessons; therefore, truancy and drop-out in this school have now been reduced through the provision of food to students at schools (Interviewee H3, July, 2023).

This meant that the availability of food at school played a significant role in improving students' attendance. This finding resembles the assertions from Adekunle & Christiana (2016) and Kabir & Islam (2018), which expose that SFP improved students' attendance, reduced dropout rates, and retained them at schools to concentrate on learning. It has also been revealed in the conceptual framework that providing students with appropriate food can

lead to good attendance and, hence, low absenteeism. Therefore, the provision of food services for students at schools attracted and motivated students to attend a lesson, reducing absenteeism and ultimately decreasing dropout rates in public secondary schools. Therefore, this entails that SFP is a powerful strategy for improving learners' attendance and can pave the way for enhancing the teaching and learning process, which leads to better students' performance. From the findings, it is observed that SFP assisted in increasing students' academic performance. This was supported by the findings Table 3 and Table 4, where 65.5 percent of the respondents (students) and 89.1 percent of the respondents (teachers) reported that SFP is one of the factors that contribute to an increase in students' academic performance. On interviewing, one of the interviewees was quoted, adding that:

Students leave home early in the morning for school without any meal, and often they don't get any food at school, leading to hunger, inattention, and later admonished value in education, so this program has helped students enhance happiness in learning and improve their educational outcomes (Interviewee H1, July 2023).

This implies that adequate meals contribute to better memory retention, problem-solving skills, and overall cognitive function, allowing students to engage effectively in their learning. This is in line with Musolo (2020), who noted that SFP strengthens and increases academic performance in schools. Therefore, it's probably true that the provision of meals might encourage regular school attendance, as students are more likely to attend classes, and ultimately increase students' learning in public secondary schools. In addition, the findings also revealed that SFP encourages students to concentrate on the learning process in public secondary schools in Misungwi district. As the results show, 80.2 percent of the respondents (students) in Table 3 agreed on the fact that the proper provision of food to students helps to positively influence cognitive function, concentration, and memory retention and also improves students' ability to focus on academic tasks in the classroom. This meant that when students get food at school, it assists them to improve their well-being and also increases their thinking abilities to focus on learning. When interviewing one, the interviewees were quoted as:

In this school, the provision of food has enabled the students to improve their learning, even those who were not able to read or write well; this was helped by the introduction of remedial classes, which always take place during the afternoon. Before the introduction of this program, the school had no remedial classes due to short-term hunger. It was difficult to continue with remedial classes while learners had empty stomachs. (Interviewee H5, July 2023)

This implies that the introduction of SFP in public secondary schools in Misungwi district is very essential to improving the teaching and learning process. This is in line with Maslow's hierarchy of needs, which states that the basic needs must be provided before other needs so as to motivate a person to perform higher activities (Maslow, 1943). In order for the learners to concentrate on the learning process, food must be provided. This helps to reduce students' short-term hunger, which may hinder their concentration during the learning process. Therefore, SFP has enabled students to enjoy learning, which has assisted them in increasing their understanding.

5. Conclusion

Based on the findings and discussions, the study identified that SFP contributes to enhancing students' learning through reducing students' truancy and drop-out, enhancing students' academic performance, increasing concentration of students in the learning process, promoting social skills among teachers and students at schools and even in the community around the schools, and improving the health of students.

Recommendation - Based on the findings and discussion of the study, the researcher recommended that public secondary school authorities should communicate and collaborate well with the community around the schools and local leaders found within the community to ensure that all parents are involved in understanding the contributions of school feeding program and participate fully to ensure the sustainability of the program in public secondary schools. Again, the Government of Tanzania, through the Ministry of Education, Science, and Technology, is advised to take education as a number one priority and be practically committed to financing,

implementing the developed policies, national guidelines for the provision of foods and nutrition for students at schools, and strategies for the successful implementation of school programs effectively.

Practical Educational Implications - The findings of this study have important practical implications for educational practitioners, students, schools, and education policymakers. For teachers and other educational practitioners, the findings suggest that the school feeding programme should be considered an important educational support intervention rather than merely a welfare activity. Since the study found that the programme increased students' concentration and made remedial and afternoon classes more feasible, teachers can organise and implement learning activities that maximise students' participation after they have received meals. In particular, remedial classes, group discussions, and other extended learning activities can be strengthened when students are adequately fed and able to remain at school throughout the day.

For students, the findings demonstrate that the provision of food at school can reduce short-term hunger and encourage them to remain in school for longer periods. This provides students with greater opportunities to attend lessons regularly, participate in remedial classes, interact with teachers and fellow students, and engage effectively in academic activities. The reduction in truancy and dropout identified in the study indicates that school feeding can contribute to students' continuity in education, particularly for those who travel long distances to school or come from households with limited access to adequate food.

The findings also have important implications for school leaders and school management teams. Heads of schools should integrate school feeding programmes into broader school improvement strategies rather than treating them as separate welfare activities. Since the findings indicated that the programme contributes to students' concentration, attendance, remedial class participation, and academic performance, school authorities should establish effective mechanisms for planning, implementing, monitoring, and sustaining the provision of meals. Schools should also strengthen collaboration with parents, community leaders, and other stakeholders to mobilise resources and ensure the sustainability of the programme.

For education policymakers and government authorities, the findings suggest the need to strengthen financial, administrative, and policy support for the effective implementation of school feeding programmes. Although the study found that the school feeding programme contributes positively to students' learning, these benefits may not be fully realised when food provision is irregular or when schools depend on inconsistent contributions from parents and communities. The Government of Tanzania, through the Ministry of Education, Science and Technology and local government authorities, should therefore provide adequate support through sustainable financing mechanisms, clear implementation guidelines, effective monitoring, and continuous stakeholder mobilisation.

Generally, the findings demonstrate that students' basic physiological needs are closely connected to their ability to participate effectively in the teaching and learning process. Consistent with Maslow's Hierarchy of Needs Theory, the study suggests that efforts to improve students' academic outcomes should consider their nutritional and physical needs alongside other academic interventions. Therefore, in public secondary schools in contexts similar to Misungwi District, school feeding programmes should be integrated into broader educational strategies aimed at improving students' attendance, concentration, retention, participation in remedial learning, and academic performance.

AI declaration - No generative Artificial Intelligence (AI) were used in this study.

6. References

- Abulof, U. (2017). Introduction: Why We Need Maslow in the Twenty-First Century. *Society*, 54(6), 508-509. 10.1007/s12115-017-0198-6
- Adekunle, D. T., & Christiana, O. O. (2016). The Effects of School Feeding Programme on Enrolment and Performance of Public Elementary School Pupils in Osun State, Nigeria. *World Journal of Education*,

- 6(3), 39-47.
- Afroze, R., Mia, M. M. U., & Majumder, M. S. I. (2013). School Nutrition Programme of BRAC and Banchte Shekha: A Baseline Report. *Research and Evaluation Division, BRAC. Dhaka, Bangladesh.*
- Allen, J. A., Scott, C., Tracy, S., & Crowe, J. (2013). The signal provision of emotion: Using emotions to enhance reliability via sensemaking. *International Journal of Work, Organisation, and Emotion.*
- Baker, I., Elwood, P. C., Hughes, J., Jones, M., & Sweetnam, P. (1978). School milk and growth in primary schoolchildren. *The Lancet*, 312(8089), 575.
- Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in pharmacy teaching and learning*, 10(6), 807-815.
- Chaula, E. M. (2015). *An assessment on influence of School Feeding Program on pupils' enrolment, attendance and academic performance in primary schools in Njombe district, Tanzania* The Open University Of Tanzania.
- Christensen, L. B., Johnson, B., Turner, L. A., & Christensen, L. B. (2011). Research methods, design, and analysis.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
- Gray, D. E. (2021). Doing research in the real world. *Doing research in the real world*, 1-100.
- Hassani, O. M. (2016). *Assessing the influence of school meals on students' attendance in community secondary schools: the case of Korogwe district* The University of Dodoma].
- Hopper, E. (2020). Maslow's hierarchy of needs explained.
- Iddrisu, I., Gunu, I. M., & Abdul-Rahaman, N. (2022). Challenges of school feeding in Ghana: Its effect on enrolment and attendance. *Social Sciences & Humanities Open*, 6(1), 100285.
- Kabir, M. A. U., & Islam, M. S. (2018). School Nutrition Programme, Bangladesh: WFP-BRAC Initiative.
- Kiger, M. E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical Teacher*, 42(8), 846-854. 10.1080/0142159X.2020.1755030
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. sage.
- Lukindo, J. J. (2018). Contribution of School Feeding Programmes (SFPs) In enhancing pupils' schooling in primary schools in Monduli District, Tanzania. *European Journal of Education Studies*.
- Maijo, S. N. (2018). Impact of school feeding programme on learners' academic performance in mlunduzi ward, Tanzania. *International journal of educational studies*, 5(3), 125-130.
- Maslow, A. H. (1943). A Theory Of Human Motivation. pdf.
- McLeod, B. A., Johnson Jr, W. E., Cryer-Coupet, Q. R., & Mincy, R. B. (2019). Examining the longitudinal effects of paternal incarceration and coparenting relationships on sons' educational outcomes: A mediation analysis. *Children and Youth Services Review*, 100, 362-375.
- Missan, H. (2011). School Meals. *Tanzania Food and Nutrition Centre*.
- Musolo, G. A. (2020). *The Role of School Feeding Programme in Increasing Performance and Retention Levels in ASAL Areas: A Case Study of Kajiado County (2014-2019)* United States International University-Africa].
- National Bureau of Statistics Tanzania, (2012) Misungwi (District, Tanzania) with population statistics, charts, map and location <http://citypopulation.de/en/tanzania/admin/mwanza/1907misungwi/>
- NBS-Population and Housing (PHC) (2022). National Bureau of Statistics, Tanzania <https://www.nbs.go.tz/nbs/takwimu/Agriculture/MWANZA%20REPORTS.pdf>
- Nemes, J. E. (2018). Sustainability of School-based Food Aid in Bahi District of Tanzania's Dodoma Region after the end of World Food Programme Support. *African Journal of Teacher Education*, 7(3), 1-21.
- Patton, M. Q. (2002). Qualitative research and evaluation methods. Thousand Oaks. Cal.: Sage Publications, 4.
- Picken, N., Bruckmayer, M., & Flemons, L. (2021). *Provision of school meals across the EU – An overview of rationales, evidence, facilitators and barriers*. Publications Office of the European Union. <https://doi.org/doi/10.2767/346782>
- Richter, L., Griesel, D., & Rose, C. (2000). The psychological impact of a school feeding project. *Addressing Childhood Diversity*, 74-93.
- Sanya, H. (2015). *Impact of School Feeding on Student Attendance in Secondary School: A case of Kiteto*

District in Tanzania [Masters, The Open University of Tanzania].

Shorten, A., & Smith, J. (2017). Mixed methods research: expanding the evidence base. In (Vol. 20, pp. 74-75): Royal College of Nursing.

Singh, Y. K. (2006). *Fundamental of research methodology and statistics*. New Age International.

Stefan, S. G. B., Therese, K., Jan, W., Michael, N., & Sandra, L. C. (2014). Mapping of National School Food Policies across the EU28 plus Norway and Switzerland.

TAMISEM, (2022). Basic Education Statistics Data. [hppts://www.tamisemi.go.tz](https://www.tamisemi.go.tz).

United Republic of Tanzania (2014). Ministry of Education Training, Science and Technology: Education and Training Policy – 2014

URT. (2021). Snapshot of Misungwi District-Subdivisions Transport and More. <https://misungwide.go.tz/>

Vetter, T. R. (2017). Descriptive statistics: reporting the answers to the 5 basic questions of who, what, why, when, where, and a sixth, so what? *Anesthesia & Analgesia*, 125(5), 1797-1802.

WyEST. (2021). Mwongozo wa Kitaifa wa utoaji wa huduma ya chakula na lishe kwa wanafunzi wa elimumsingi. Wizara ya Elimu, Sayansi na Teknolojia

Webb, P., Boyd, E., Pee, S. D., Lenters, L., Bloem, M., & Schultink, W. (2014). Nutrition in emergencies: Do we know what works? *Food Policy*, 49, 33-40. <https://doi.org/10.1016/j.foodpol.2014.03.016>

Zenebe, M., Gebremedhin, S., Henry, C. J., & Regassa, N. (2018). School feeding program has resulted in improved dietary diversity, nutritional status and class attendance of school children. *Italian Journal of Pediatrics*, 44(1), 16. 10.1186/s13052-018-0449-1

