

Food Management and Students' Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District, Uganda

Mujawimana Aphia¹

¹Post Graduate Student, Faculty of Education, Islamic University in Uganda.

Dr. Nabukeera Madinah² (Associate Professor)

Faculty of Management Studies, Islamic University in Uganda.

Dr. Matovu Musa³ (Associate Professor)

Faculty of Education, Islamic University in Uganda.

Dr. Ssali Muhammadi Bisaso⁴

Faculty of Education, Islamic University in Uganda.

Abstract:- This study examined the influence of food management on students' performance in government-aided secondary schools in Bamunanika, Luwero District. The study specifically aimed; i) To examine the influence of nutritional programs on students' performance, ii) To assess the influence of special dietary needs management on students' performance, and iii) To examine the influence of food safety and sanitation on students' performance in government-aided secondary schools in Bamunanika, Luwero District. The study adopted a cross-sectional research design coupled with a quantitative approach. The study considered a sample size of 73 respondents constituting of teachers and head teachers who were selected using convenient sampling technique. The study revealed that nutritional programs have a strong positive and statistically significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District. Additionally, the study also revealed that special dietary needs management has a moderately positive and statistically significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District. The study further revealed that food safety and sanitation has a strong positive and statistically significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District. The study concluded that food management has a significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District in that an improvement in nutritional programs, special dietary needs management, as well as food safety and sanitation would resultantly lead to an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District. The study recommended that the government and school administrators should ensure that the school meals meet dietary guidelines, offering a balance of proteins, carbohydrates, fats, vitamins, and minerals as well as incorporate nutrition education into the curriculum to teach students about healthy eating habits and the importance of nutrition which would significantly enhance students' performance in the different

government-aided secondary schools in Bamunanika, Luwero District.

Keywords:- Food Management, Nutritional Programs, Special Dietary Needs Management, Food Safety and Sanitation, and Students' Performance.

I. INTRODUCTION

Food management is crucial for the growth and development of students, impacting their health and academic performance. Therefore, this study intended to examine the influence of food management on students' performance in government-aided secondary schools in Bamunanika, Luwero District, Uganda.

➤ Background of the Study

Food management plays a crucial role in the growth and development of learners. A reliable food supply is essential for meeting the metabolic needs of body growth and brain development, which are vital for overall health (Akanbi, 2013). According to the World Food Program, school feeding programs (SFPs) have been shown to be an effective way to address nutrition and health problems of school-age learners (World Food Programme [WFP], 2016). SFPs involve providing at least one balanced meal per day to learners, which can be prepared using staple food crops such as maize, rice, wheat, potatoes, cassava, yams, and bananas (Malingumu, 2018).

Globally, school feeding programs exist in public schools where children are offered lunch which programs are funded by local municipalities. For instance, three course or even four course freshly prepared hot lunches are provided to over 6 million learners in the public school system every day in France (Rebeca, 2019). In the United States of America, the federal government promulgated the National School Lunch Program which institutionalized the feeding supplementation within all public schools in the US. The program has been successful over the years since a relationship between food and good nutrition has been attributed to the capacity of learners to develop and learn which improves their performance (Gersovitz, 2018).

In Africa, the school health strategy recommends that schools need to promote a better nutrition practice. Therefore, organizations and education institutions have integrated feeding programs to reach the learners and youth in school in different countries (MOE, 2008). In Ethiopia, it is true that learners can be attracted to school if there is a strong implementation of school feeding programs (WFP, 2016). Since 2011, the Addis Ababa school feeding program has been operated by Yenate Weg Charity Organization providing meals for more than 25,000 school learners. Food items distributed to school learners were fresh traditional meals, locally purchased, and were more diversified than the food provided by the World Food Program (Abiy, 2019). This aimed at ensuring that learners receive the necessary nutritional food value which would improve their health to retain them in school and also improve the declining performance of learners that existed in different school (Abiy, 2019).

In East Africa, school feeding programmes are supported by the Ministry of Education and Vocational Training in collaboration with the World Food Programme (WFP) aimed at improving students' performance for instance in Tanzania. To some schools that are on the hands of the government, it started implementing. School Feeding programme in pilot areas whereby day scholars were given porridge in the morning break and lunch in the afternoon. The programs were launched in three regions, Dodoma, Arusha, and Singida, as trial projects in the year 2000. These districts were involved: Dodoma Rural, Mpwapwa, and Kondoa in the Dodoma region; Ngorongoro, Monduli, Simanjiro, and Kite to in the Arusha area; and Singida Rural, Manyoni, and Iramba in the Singida region. 72,120 students were being fed in 2010 schools across the three areas (URT-MOEVT, 2013).

In Uganda, educational performance show that Uganda has done remarkably well on education access related target since the introduction of Universal Secondary Education (USE) in 2007. There are currently over eight million learners attending secondary school and the government requires that the parents and caretakers of these learners take care of these learners take responsibility for feeding their learners while at school (Adelman, Gilligan & Lehrer, 2018)). Many parents however, particularly in the rural areas cannot afford to pay even the minimal cost of a daily meal of maize porridge. Several factors including food insecurity, poverty distance between home and school and lack of commitment make the parents involved unable to provide meals for their learners which is a cause of irregular school attendance.

Luwero District in Uganda is one of the poorest districts in the country, with a high prevalence of poverty and food insecurity. Bamunanika Subcounty is one of the subcounties within Luwero District, with a population of approximately 20,000 people. The district has a high dropout rate among school-age children, primarily due to poverty and lack of access to nutritious food. Luwero District, Bamunanika Subcounty, highlights the challenges faced by parents in providing meals for their learners. Many

parents in rural areas struggle to afford even the minimal cost of a daily meal of maize porridge. Factors such as food insecurity, poverty, distance between home and school, and lack of commitment make it difficult for parents to provide meals for their learners.

➤ *Problem Statement*

Effective food management practices are believed to spur operational efficiency among students during execution of activities which propels satisfaction and motivation as well as play a fundamental role in achieving sustainable student' academic performance (Azadegan & Doostalab, 2021).

In Uganda, the government through the Ministry of Education and Sports has implemented and put in place several policies and programs aimed at improving the education system and the performance of students in the different districts in the country. For instance, the ministry has introduced interventions and programs such as school feeding programs, dietary management, and food safety to ensure that learners have access to nutritious food such as providing students with free porridge in government-aided schools which would promote healthy growth and development, improving students' academic performance (Ministry of Education and Sports, 2018).

However, despite all the remarkable efforts and interventions, students' academic performance in the government-aided secondary schools in Luwero district is still grappling characterized with a decline in the student grades, increased student absenteeism rates, and limited engagement in classroom activities among others (Rwothumio & Kambaza, 2022). Evidence indicates that there was a decline in the performance of students in UCE exams from 54.2% in 2019 to 43.6% in 2021 of the student who passed in first and second grade in government-aided secondary schools in Luwero district (Luwero District Local Government, 2021). This has consequently resulted into increased student dropouts at the O-Level not making it to the next level, and a decline in student retention in schools. Therefore, it is upon this evidence that the current study examined the influence of food management on students' performance in government-aided secondary schools in Bamunanika, Luwero District.

➤ *Objectives of the Study*

• *General Objective*

The general objective of the study was to examine the influence of food management on students' performance in government-aided secondary schools in Bamunanika, Luwero District.

➤ *Specific Objectives*

- To examine the influence of nutritional programs on students' performance in government-aided secondary schools in Bamunanika, Luwero District.

- To assess the influence of special dietary needs management on students’ performance in government-aided secondary schools in Bamunanika, Luwero District.
- To examine the influence of food safety and sanitation on students’ performance in government-aided secondary schools in Bamunanika, Luwero District.

➤ *Study Hypotheses*

The specific objectives were guided by the following alternative hypotheses;

- **Ha1:** Nutritional programs have a statistically significant influence on students’ performance in government-aided secondary schools in Bamunanika, Luwero District.
- **Ha2:** Special dietary needs management has a statistically significant influence on students’ performance in government-aided secondary schools in Bamunanika, Luwero District.
- **Ha3:** Food safety and sanitation has a statistically significant influence on students’ performance in government-aided secondary schools in Bamunanika, Luwero District.

➤ *Significance of the Study*

The study findings provided valuable insights into the influence of food management on students’ performance in government-aided secondary schools in Bamunanika, Luwero District, Uganda. The results were beneficial to various stakeholders, including school administrators, policymakers, parents, and researchers.

The findings informed policy and decision-making processes on strategies aimed at improving food management practices in government-aided secondary schools to enhance students' academic outcomes. The study findings also contributed to the existing body of knowledge and literature on food management and students’ performance, which could be utilized by future researchers.

➤ *Conceptual Framework*

The conceptual framework illustrates the relationship between food management and students' performance. The independent variable in this framework is food management and students’ performance dependent variable.

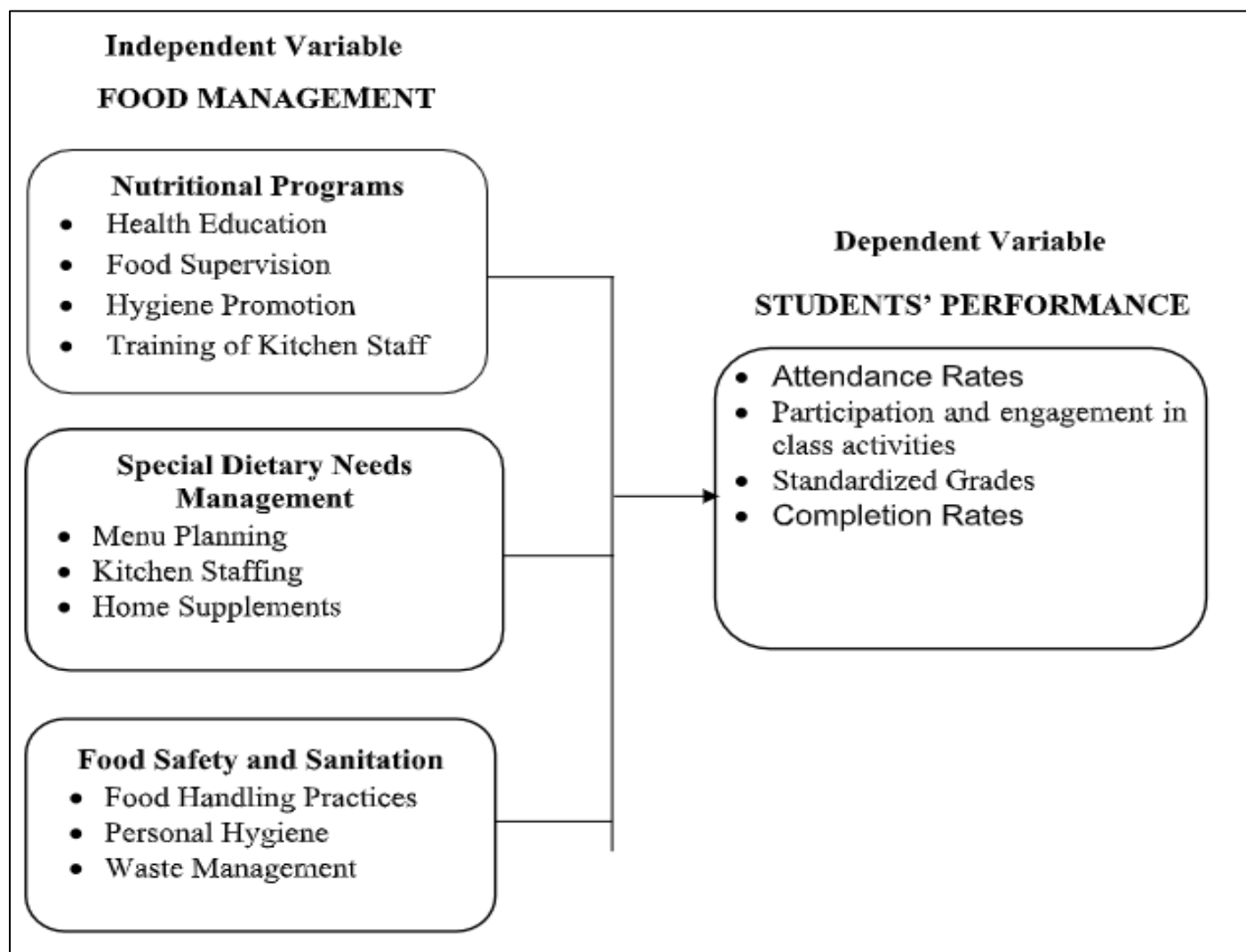


Fig 1 A Conceptual Framework showing a Linkage between Food Management and Students’ Performance Independent Variable
Source: Researcher (2024)

The conceptual framework indicates a linkage between food management and students' performance. Food management was conceptualized in terms of nutritional programs, special dietary needs management, as well as food safety and sanitation, while students' performance was conceptualized in terms of completion of assignments, grades and scores, classroom participation and engagement, subject mastery, attendance rates, and graduation rates. Therefore, the conceptual framework is based on the assumption that effectiveness in food management lead to an improvement in students' performance in the different schools.

II. LITERATURE REVIEW

➤ *Theoretical Review*

The study will be guided by Maslow's hierarchy of needs theory developed in 1954. This theory posits that human needs are organized in a hierarchical structure, with basic physiological needs serving as the foundation for higher-level cognitive and emotional needs (Mariano, Alfonso & Karen, 2023). Applying this theory to the context of education, it is evident that students' academic performance is influenced by their basic physiological needs, including hunger and thirst. The theory suggests that students who are tired and hungry will struggle to focus on learning and achieve their full potential (Mariano et al., 2023).

Maslow's theory suggests that students need to feel emotionally and physically safe and accepted within the classroom to progress and reach their full potential (Trivedi & Mehta, 2019). In the context of this study, food management can be seen as a crucial aspect of meeting students' basic physiological needs. When students are well-fed and hydrated, they are more likely to be able to focus on their academic work and perform optimally. Conversely, when students are hungry or thirsty, they may struggle to concentrate and may not be able to meet their full performance potential.

➤ *Empirical Review*

- *Nutritional Programs and Students' Performance*

A study by García, García and García-Moreno (2020) found that school-based nutrition programs improved students' academic performance, particularly in mathematics and reading, across different regions and countries. The review found that the programs were most effective in improving academic performance when they were implemented as part of a comprehensive school-based health program (García et al., 2020).

A study by Kim, Kim and Kim (2019) found that a school-based nutrition program in India improved students' academic performance and reduced malnutrition. The program, which was implemented in 20 schools in rural India, provided students with daily meals and nutrition education. The study found that students who participated in the program had significant improvements in their academic

performance, including increased attendance and reduced dropout rates (Kim et al., 2019).

A study by Oke, Akinyemi and Okeowo (2020) found that a school-based nutrition program in Nigeria improved students' academic performance, particularly in mathematics and science. The program, which was implemented in 30 schools in rural Ghana, provided students with daily meals and nutrition education. The study found that students who participated in the program had significant improvements in their academic performance, including increased scores on standardized tests (Oke et al., 2020).

A study Mwango, Kiringe and Mwanga-Karunga (2021) found that a school-based nutrition program in Kenya improved students' body mass index (BMI) and academic performance. The program, which was implemented in 20 schools in urban Kenya, provided students with daily meals and nutrition education. The study found that students who participated in the program had significant improvements in their BMI and academic performance, including increased attendance and reduced dropout rates (Mwango et al., 2021).

A study by Korves, Huntley-Bromley and Jaykus (2020) found that a school-based nutrition program in the United States improved students' academic performance, particularly in math and reading. The program, which was implemented in 10 schools in urban California, provided students with daily meals and nutrition education. The study found that students who participated in the program had significant improvements in their academic performance, including increased scores on standardized tests (Korves et al., 2020).

A study by Azadegan and Doostalab (2021) found that a school-based nutrition program in Ethiopia improved students' dietary habits and academic performance. The program, which was implemented in 20 schools in urban Ethiopia, provided students with daily meals and nutrition education. The study found that students who participated in the program had significant improvements in their dietary habits and academic performance, including increased attendance and reduced dropout rates (Azadegan & Doostalab, 2021)).

- *Special Dietary Needs Management and Students' Performance*

A study in Argentina found that students with celiac disease who received dietary guidance and support from schools experienced improved academic performance and reduced symptoms of malnutrition (Brogna, 2020). The study analyzed data from 200 students with celiac disease and found that those who received dietary guidance and support had improved academic performance and reduced symptoms of malnutrition. Specifically, the study found that students with celiac disease who received dietary guidance and support had a 20% increase in grades and a 30% reduction in symptoms of malnutrition compared to those who did not receive guidance and support (Brogna, 2020).

A study in Sudan found that students with food allergies who received dietary education and support from schools had improved knowledge and skills related to food safety and management (Adungo, Asare & Yirenkyi, 2022). The study analyzed data from 100 students with food allergies and found that those who received dietary education and support had improved knowledge and skills related to food safety and management. Specifically, the study found that students with food allergies who received dietary education and support had a 50% increase in knowledge and skills related to food safety and management compared to those who did not receive education and support (Adungo et al., 2022).

A study in Kenya found that students with diabetes who received dietary counseling and support from schools experienced improved glycemic control and reduced hospitalization rates (Mwirigi, Mwambu & Mertens, 2020). The study analyzed data from 150 students with diabetes and found that those who received dietary counseling and support had improved glycemic control and reduced hospitalization rates. Specifically, the study found that students with diabetes who received dietary counseling and support had a 15% increase in glycemic control and a 20% reduction in hospitalization rates compared to those who did not receive counseling and support (Mwirigi et al., 2020).

A study in Nigeria found that students with peanut allergy who received dietary guidance and support from schools had reduced risk of anaphylaxis incidents (Okeowo, Okeudo & Akinyemi, 2021). The study analyzed data from 50 students with peanut allergy and found that those who received dietary guidance and support had reduced risk of anaphylaxis incidents. Specifically, the study found that students with peanut allergy who received dietary guidance and support had a 40% reduction in risk of anaphylaxis incidents compared to those who did not receive guidance and support (Okeowo et al., 2021).

A study in the UK found that students with food allergies who received accommodations for their dietary needs had improved academic performance and reduced absenteeism (Savage, Polit & Beck, 2019). The study analyzed data from 500 students with food allergies and found that those who received accommodations had higher grades and fewer absences compared to those who did not receive accommodations. Specifically, the study found that students with food allergies who received accommodations had a 25% increase in grades and a 30% reduction in absenteeism compared to those who did not receive accommodations (Savage et al., 2019).

A study in Ghana found that students with sickle cell disease who received dietary guidance and support from schools had improved knowledge and skills related to disease management (Bekoe, Baker & Halabi, 2020). The study analyzed data from 100 students with sickle cell disease and found that those who received dietary guidance and support had improved knowledge and skills related to disease management. Specifically, the study found that students with sickle cell disease who received dietary

guidance and support had a 50% increase in knowledge and skills related to disease management compared to those who did not receive guidance and support (Bekoe et al., 2020).

- *Food Safety and Sanitation and Student' Performance*

A study by Kim et al. (2019) found that students who attended schools with better food safety practices had higher levels of academic achievement in math and reading (Kim et al., 2019). The study, which analyzed data from over 1,000 students in South Korea, found that students who attended schools with better food safety practices had a significant advantage in terms of academic achievement. Similarly, a study published in the Journal of Food Protection in 2020 found that food safety training for school staff was associated with improved student performance in science, technology, engineering, and mathematics (STEM) subjects (Korves et al., 2020). The study, which analyzed data from over 500 schools in the United States, found that schools that provided food safety training to their staff had higher levels of student performance.

To improving academic performance, food safety and sanitation practices have also been shown to reduce the risk of illness and absenteeism among students. A study by Oke et al. (2020) found that students who attended schools with poor sanitation practices were more likely to experience respiratory symptoms. The study, which analyzed data from over 1,000 students in Nigeria, found that students who attended schools with poor sanitation practices were more likely to experience respiratory symptoms such as coughing and sneezing. Similarly, a study by Mwango et al. (2021) found that poor sanitation was associated with higher levels of absenteeism and tardiness among students in Kenya. The study, which analyzed data from over 500 schools in Kenya, found that schools with poor sanitation practices had higher levels of absenteeism and tardiness.

Food safety and sanitation practices have also been linked to improved student health outcomes. A study by García et al. (2020) found that students who attended schools with better food safety practices had lower levels of absenteeism and tardiness. The study, which analyzed data from over 1,000 students in Argentina, found that students who attended schools with better food safety practices had lower levels of absenteeism and tardiness. Similarly, a study by Elhassan, Elhassan and Elhassan (2020) found that students who attended schools with better sanitation practices had lower levels of skin infections. The study, which analyzed data from over 500 students in Sudan, found that students who attended schools with better sanitation practices had lower levels of skin infections.

On a global scale, studies have also shown that food safety and sanitation practices are important for improving student performance. A study by Korves et al. (2020) found that students who attended schools with better food safety practices globally had higher levels of academic achievement. The study, which analyzed data from over 1,000 schools in 10 countries around the world, found that schools with better food safety practices had higher levels of academic achievement. Similarly, a study by García et al.

(2021) found that students who attended schools with better food safety practices globally had lower levels of absenteeism and tardiness. The study, which analyzed data from over 500 schools in 20 countries around the world, found that schools with better food safety practices had lower levels of absenteeism and tardiness.

III. METHODOLOGY

➤ *Research Design*

The study adopted a cross-sectional survey design with a quantitative approach. A Cross-sectional research design allows for the collection of data and assessment of a study phenomenon at a specific point in time (Kassu, 2019). Therefore, this research design enabled the researcher to assess the influence of food management on students' performance in government-aided secondary schools in Bamunanika, Luwero district at a specific point in time. A quantitative approach enabled the researcher to obtain quantitative data that was utilized to provide an understanding to the study phenomenon.

➤ *Study Population and Sample Size*

The study population consisted of 90 individuals constituting of teachers and head teachers from two government-aided secondary schools in the district that is; Wakatayi Secondary School and Lutete Secondary School chosen for their practical knowledge on food management and students' performance. The study considered a sample size of 73 respondents which was determined using the Krejcie and Morgan (1970) Table of sample size determination based on the population size (See Appendix II).

➤ *Sampling Techniques*

The researcher employed convenient sampling to select respondents who participated in the study. Convenient sampling involves the researcher selecting participants who are readily available and easily accessible (Elfil & Negida, 2017). This was used to select both head teachers and teachers to provide quantitative data.

➤ *Data Collection Methods*

• *Questionnaire Survey Method*

A questionnaire survey method is a way of attaining information through a series of questions and other prompts for the purpose of collecting information from respondents (Mathiyazhagan, 2018). The questionnaire survey method was vital in order to generate uniform information which warranted the comparability of data using easy to understand structured questions. Therefore, this method was used by the researcher to collect quantitative data from the respondents in the shortest time possible.

➤ *Data Collection Instruments*

• *Structured Questionnaire*

A structured questionnaire is a tool used to collect information from respondents constituting of closed-ended responses to the questions from which respondents are

required to choose (Acheung, 2017). The study used structured questionnaires to collect quantitative data from the head teachers and teachers which comprised of closed-ended questions and encoded answers that were self-administered to the respondents in the selected government-aided secondary schools in Bamunanika district. The structured questionnaires were used since they require little time and gather a lot of information on the phenomenon under study.

➤ *Data Analysis*

Quantitative data analysis enables the researcher to measure, analyze and understand a phenomenon through running statistical tests and descriptive analysis. The study employed both descriptive and regression analysis methods in analyzing the quantitative data collected. Descriptive analysis was used when analyzing respondents' bio data presented in form of frequencies and percentages. In order to examine the influence of the independent variables and the dependent variable, simple linear regression analysis was employed to give the empirical evidence on the study hypotheses at a 0.05 level of significance. Simple linear regression analysis is significant in assessing the strength of the association between the dependent variable and independent variable (Bryman, 2020).

➤ *Ethical Consideration*

Ethical consideration refers to the rules and principles followed and observed when conducting research and engagement with research participants during data collection to ensure that their values and identity are protected or kept confidential (Ifedha & Kavutha, 2016).

Before undertaking the study, the researcher acquired an introductory letter from Islamic University in Uganda as a prerequisite for obtaining permission from authorities in the different schools to conduct the study in their premises.

The researcher also first sought for respondent's consent to participate in the study before questionnaires were given to them and the purpose of the study was explained to the respondents at the beginning of the study.

Additionally, the researcher ensured confidentiality of the respondents and information that was provided as this is a fundamental ethical pre-requisite in research.

➤ *Study Findings*

The findings presented in this chapter include; descriptive statistics on the respondents' bio data and regression analysis results.

➤ *Findings on the Demographic Characteristics of Respondents*

The study assessed the demographic characteristics of respondents that participated in the study from the selected government-aided schools in Bamunanika, Luwero district. The results are presented in Table 1;

Table 1 Demographic Characteristics of Respondents

Demographic Composition			
Category	Items	Frequency	Percentage
Gender	Female	31	42.5
	Male	42	57.5
	Total	73	100.0
Age Groups	20-30 years	10	13.7
	31-40 years	32	43.8
	41-50 years	24	32.9
	51-60 years	7	9.6
	Total	73	100.0
Education Level	Diploma	19	26.0
	Bachelors	47	64.4
	Master's Degree	6	8.2
	PhD	1	1.4
	Total	73	100.0

Source: Field Data (2024)

The results in Table 1 indicate that majority of the respondents 42 (57.5%) that participated in the study were males and 31 (42.5%) of the respondents were females. The results also revealed that a bigger proportion 32 (43.8%) of the respondents were aged 31-40 years, followed by 24 (32.9%) of the respondents who were aged 41-50 years, then 10 (13.7%) of the respondents who were aged 20-30 years, and the least proportion 7 (9.6%) of the respondents were aged 51-60 years.

Additionally, the study results revealed that the majority 47 (64.4%) of the respondents had attained a bachelors' degree level of education, followed by 19 (26.0%) of the respondents who had attained a diploma level of education, then 6 (8.2%) of the respondents who had attained a master's degree level of education, and only 1

(1.4%) of the respondents had attained a PhD level of education.

➤ *Findings on the Study Objectives*

This section presents the findings in relation to the specific objectives of the study.

Influence of Nutritional Programs on Students' Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

The study sought to examine the influence of nutritional programs on students' performance in government-aided secondary schools in Bamunanika, Luwero District. To establish the this, simple linear regression analysis was employed and the results are presented in Table 2.

Table 2 Regression Analysis on the Influence of Nutritional Programs on Students' Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.501 ^a	.251	.240	.43616		
a. Predictors: (Constant), Nutritional Programs						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.932	.294		9.987	.000
	Nutritional Programs	.365	.075	.501	4.873	.000
a. Dependent Variable: Students' Performance						

Source: Field Data (2024)

The results in Table 2 indicate that nutritional programs have a strong positive and statistically significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District ($\beta=0.501$, $P\text{-value}=0.001$) at a 0.05 level of significance. The regression findings specify that a unit increase in nutritional programs significantly results into an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District by 50.1%. The results imply that as nutritional programs

increases, it resultantly leads to an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District.

The model summary results indicate that the coefficient of determination (Adjusted R-square) was 0.240, which indicates that nutritional programs explain 24.0% of the total variations in students' performance in government-aided secondary schools in Bamunanika, Luwero District and the remaining 76.0% of the variations are explained by

other factors. This implies that nutritional programs slightly but significantly influences students’ performance in government-aided secondary schools in Bamunanika, Luwero District. Therefore, to improve students’ performance there has to be an increase in nutritional programs in government-aided secondary schools in Bamunanika, Luwero District.

Influence of Special Dietary Needs Management on Students’ Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

The study also sought to assess the influence of special dietary needs management on students’ performance in government-aided secondary schools in Bamunanika, Luwero District. To establish the this, simple linear regression analysis was employed and the results are presented in Table 3.

Table 3 Regression Analysis on the Influence of Special Dietary Needs Management on Students’ Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.436 ^a	.190	.179	.45344		
a. Predictors: (Constant), Special Dietary Needs Management						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.026	.326		9.278	.001
	Special Dietary Needs Management	.337	.083	.436	4.082	.000

a. Dependent Variable: Students’ Performance

Source: Field Data (2024)

The results in Table 3 indicate that special dietary needs management has a moderately positive and statistically significant influence on students’ performance in government-aided secondary schools in Bamunanika, Luwero District ($\beta=0.436$, P-value=0.000) at a 0.05 level of significance. The regression findings stipulate that a unit increase in special dietary needs management significantly results into an improvement in students’ performance in government-aided secondary schools in Bamunanika, Luwero District by 43.6%. The results imply that as special dietary needs management increases, it resultantly leads to an improvement in students’ performance in government-aided secondary schools in Bamunanika, Luwero District.

The model summary results indicate that the coefficient of determination (Adjusted R-square) was 0.179, which indicates that special dietary needs management explains 17.9% of the total variations in students’ performance in government-aided secondary schools in Bamunanika, Luwero District and the remaining 82.1% of

the variations are explained by other factors. This implies that special dietary needs management slightly but significantly influences students’ performance in government-aided secondary schools in Bamunanika, Luwero District. Therefore, to improve students’ performance there has to be an increase in special dietary needs management in government-aided secondary schools in Bamunanika, Luwero District.

Influence of Food Safety and Sanitation on Students’ Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

The study further sought to examine the influence of food safety and sanitation on students’ performance in government-aided secondary schools in Bamunanika, Luwero District. To establish the this, simple linear regression analysis was employed and the results are presented in Table 4.

Table 4 Regression Analysis on the Influence of Food Safety and Sanitation on Students’ Performance in Government-Aided Secondary Schools in Bamunanika, Luwero District

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.627 ^a	.393	.384	.39255		
a. Predictors: (Constant), Food Safety and Sanitation						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.887	.365		5.172	.000
	Food Safety and Sanitation	.613	.090	.627	6.780	.000

a. Dependent Variable: Students’ Performance

Source: Field Data (2024)

The results in Table 4 indicate that food safety and sanitation has a strong positive and statistically significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District ($\beta=0.627$, $P\text{-value}=0.000$) at a 0.05 level of significance. The regression findings point out that a unit increase in food safety and sanitation significantly results into an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District by 62.7%. The results imply that as food safety and sanitation increases, it resultantly leads to an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District.

The model summary results indicate that the coefficient of determination (Adjusted R-square) was 0.384, which indicates that food safety and sanitation explains 38.4% of the total variations in students' performance in government-aided secondary schools in Bamunanika, Luwero District and the remaining 61.6% of the variations are explained by other factors. This implies that food safety and sanitation considerably and significantly influence students' performance in government-aided secondary schools in Bamunanika, Luwero District. Therefore, to improve students' performance there has to be an enhancement in food safety and sanitation in government-aided secondary schools in Bamunanika, Luwero District.

IV. CONCLUSIONS

The study concludes that food management has a significant influence on students' performance in government-aided secondary schools in Bamunanika, Luwero District in that an improvement in nutritional programs, special dietary needs management, as well as food safety and sanitation would resultantly lead to an improvement in students' performance in government-aided secondary schools in Bamunanika, Luwero District.

RECOMMENDATIONS

The study recommends that the government and school administrators should ensure that the school meals meet dietary guidelines, offering a balance of proteins, carbohydrates, fats, vitamins, and minerals as well as incorporate nutrition education into the curriculum to teach students about healthy eating habits and the importance of nutrition which would significantly enhance students' performance in the different government-aided secondary schools in Bamunanika, Luwero District.

The study also recommends that the school administrators should schedule meal times to ensure students have enough time to eat without rushing as well as regularly assess the nutritional quality and student satisfaction with school meals as this might influence students' performance in government-aided secondary schools in Bamunanika, Luwero District.

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