

# The Effects of Living Conditions on Students' Academic Performance among the Students Living in North Campus of University of Education Winneba

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## Abstract

The purpose of the study was to investigate the effect of living conditions on students' academic performance. The study objectives were; to examine the effect of feeding, school sanitation, and accommodation on students' academic performance among residential students of the university of education. A cross-sectional survey design using both quantitative and qualitative methods was used to collect data from 50 residential students. The qualitative study design investigated the possibility of the relationship between the independent and the dependent variables like feeding, sanitation, accommodation, and academic performance. Data on living conditions were gathered using a questionnaire with a standard-like type scale with closed ranking items. Data from questionnaires were analyzed descriptively based on the number of times of responses had by the respondents. The findings suggested that students which performed poorly were not satisfied with the living conditions and this affected their academic performance. From the study, the following conclusions were drawn; firstly, poor feeding of students negatively affects their academic performance. Secondly, poor sanitation negatively affects students' academic performance and finally, school accommodation negatively affects students' academic performance. From the above conclusions, it was therefore recommended that the university of education Winneba should use the lobby for a feeding grant from the government so that they can provide the student with a balanced diet and a course like food and nutrition should be considered as a general course. The university of education management committee should organized health education talks to sensitize students on hygiene. Lastly, the ministry of education and sports should develop basic requirements and minimum standards for halls and disseminate them to all universities and ensure that they are implemented and this would improve the accommodation in the universities.

**Keywords:** Students • Feeding • Sanitation • Academic performance • Accommodation

## Introduction

**Overview:** This chapter of the project is carefully summarized and organized into eleven headings. These include; background to the study, statement of the problem, objectives, research questions, purpose of the study, significance of the study, and delimitation.

**Background to the study:** Formal education in Ghana is carried out in specially built institutions such as schools and colleges. It has its origins in missionary activities from the turn of the 19th century. The purpose of education, in general, is derived from the meaning of education. As one tries to get the meaning of education, one comes out with the purpose of education, which deals with the 'motive' behind giving education. The purpose of education is to initiate the young generation into society. This means that education socializes the children by teaching them the acceptable behavior of their people; it equips them with occupational skills and fits them into society. Education helps people to cope with life as a whole, helping them to develop critical thinking and to adjust to any situation they find themselves in. This cannot be achieved without considering the living condition of the student which can be a major factor that militates against the total development of a child as well as formal education is a concern [1]. The World Bank Review demands adequate and efficient education systems as a basic human right for all people regardless of their station in life. For this reason, therefore, the government of Ghana committed itself to provide quality basic education and training to prepare its nationals for the challenges of the 21<sup>st</sup> century. As a way forward, the government of Ghana started providing Free Compulsory and Universal Basic Education (FCUBE) for children of school-going. Later in 2005 and also introduced to target the bright but needy students especially those in rural, remote communities and districts [2]. Academic performance is affected by several factors including admission points, social-economic status, and school background. Indeed, the commendable effort has been directed towards the improvement of the academic performance of students in the education sector.

However, there seems to be a growing concern where the university students living conditions have been neglected since the government sees such schools as autonomous. Owing to that most universities had poor facilities (inadequate lecture halls, inadequate halls of residence, etc.), lived in unhygienic environments, incomplete structures with no security measures, some schools had a few bathrooms, toilets, even the opposite sex share the same facility with only plywood separating them as an indicator of poor living conditions which cannot favor effective learning of students. As the saying goes, a healthy mind exists in a healthy body surrounded by a healthy environment for students to perform better. This implies that students' needs should be adequately met.

This study was guided by Maslow's theory of Motivation as cited in Okumbe which argues that individuals (students) learn better when all physiological needs are gratified. Maslow further elaborated the theory in Okumbe and lists the physiological needs like hunger, thirst, sleep, and other needs. However, in developing countries like Ghana, these needs may not be given priority in schools yet are likely to affect students' academic performance and this motivated the researcher to find out the effect of students' living conditions on their academic performance. In Ghana, performance at the university level is largely measured and judged against results of semester examinations. In this context, academic performance, therefore, is measured by lecturers according to the results of students.

Living conditions the independent variable was used as a generic term to refer to good feeding, good sanitation, and good accommodation facilities.

Farlex defined feeding as giving or supplying food with nourishment or the act of consuming nourishing food. Good feeding was operationalized as serving good quality food in its right quantity, a nutritious diet, and the safety of drinking water provided to students. Good sanitation is where the environment is

cleanly concurring with the school sanitation consultative meeting report which defined it as personal and universal cleanliness. Personal cleanliness involves food hygiene practices, safe disposal of solid and liquid waste, safe collection, storage, and use of clean water, especially for drinking. Good sanitation, therefore, is the cleanliness of toilets and bathrooms, cleanliness of the drainage system, access to hand washing facility, and the good state of dustbins.

The accommodation was defined as a place where students reside. The accommodation was operationalized as ventilation of rooms, state of security, and lighting system in the rooms and the spacing in the rooms where students reside. Burnet clearly stated that living and learning conditions in institutions affect the critical thinking, intellectual development, and aesthetic appreciation of students. Acola argued that to study effectively, students' living places should have such basic facilities like enough room, adequate meals, safe water, and other things.

According to nutrition experts and doctors [3], a quality meal should provide energy and body-building materials for the body to maintain itself. Providing nutritious meals to students makes them achieve their objectives. United Nations Children's Education Fund (UNICEF) reported that sanitation has not been taken as a priority and as a result, some schools have failed to take sanitation seriously with appalling results such that some students have expressed open dislike and dissatisfaction with the state of sanitary facilities in their school, hand washing facilities at lower priority level, lack of access to safe water and many other dislikes [4].

Upon series of research conducted depict that most universities halls in Ghana had poor facilities and were overcrowded. Mostly The public schools particularly are poorly facilitated, have limited space in their halls and the students sleep on triple-deckers. There is hardly any space where students can put their belongings such as suitcases, bags, Jerry cans, and other things. Concerning that, private hostels around the school premises had taken the opportunity to charge at exorbitant prices.

As for sanitation, most schools have not lived up to the expected standard since Malaria and other common illnesses have remained common in schools. This is basically because of the bushy environment and stagnant water which acts as a breeding place for mosquitoes present in students living places. When living conditions are poor, then students academic performance is likely to be negatively affected [5].

It was upon this background that a clear indication of poor living conditions in most schools in Ghana affected the academic performance of students. This was the reason why the researcher sought to establish in greater depth the effect of living conditions on students academic performance in Ghana with a particular emphasis on North campus residential students in University of Education Winneba in Effutu Municipality.

**Statement of the problem:** Academic performance, which is measured by the examination results, is one of the major goals of a school. Hoyle argued that schools are established to impart knowledge and skills to those who go through them and behind all this is the idea of enhancing good academic performance. The University of Education whose vision is to be an internationally reputable institution for teacher education and a research center with the mission is to train competent professional teachers for all levels of education as well as to conduct research, disseminate knowledge and contribute to educational policy and development. However, the academic deans and the academic board committee have noted that while some students perform highly and others perform poorly. They are concerned about those who do not perform well because if this poor performance goes unchecked, the university may lose its reputation, which may result in a loss of confidence in university of education graduates. Much as the situation described here causes concern, it is not yet known why some students fail to attain the standards expected of them. There is a lack of sufficient research in the case of the university of education Winneba as to what factors affect the academic performance of the students. The researcher would therefore like to establish the factors affecting the academic performance of Home Economics undergraduate students of the university of education, Winneba with specific reference to feeding, sanitation, and accommodation.

The students' performance plays an important role in producing the best quality graduates who will become great leaders and manpower for the country thus responsible for the country's economic and social development. Academic achievement is one of the major factors considered by employers in hiring workers, especially for fresh graduates. Thus, students have to put the greatest effort into their studies to obtain good grades and to prepare themselves for future opportunities in their careers at the same time to fulfill the employer's demand [6].

Academic performance according to the Cambridge University Reporter is frequently defined in terms of examination performance. In this study, academic performance was characterized by performance in tests, in course work, and performance in examinations of end-of-semester examination. According to Minnesota "the higher education performance depends upon the academic performance of graduate students". Durden and Ellis quoted Staffolani and Bratti, who observed that "the measurement of students previous educational outcomes are the most important indicators of students future achievement; this refers that the higher the previous appearance, the better will the student's academic performance in future endeavors be [7].

However, it is hypothesized that the state of the students' living conditions as characterized by feeding, sanitation, and accommodation, could be one of the factors affecting academic performance among residential students of the university of education, Winneba in North Campus. If students are to make the most of their educational opportunities, it is crucially important that they enjoy adequate facilities for accommodation, private study, and healthy recreation. The poor living conditions in schools are presumed to be some of the factors that affect students academic performance. According to the university of education-Winneba, 2012 congregation brochure for graduands, specifically, most programmes are undertaken by the student in North Campus, out of (156) students who graduated in bachelor of art education, (21) students had second class upper, (89) students had second class lower, (42) students had third class division and (4) students had Pass.

For bachelor of education social studies, out of (97) students who graduate, (2) students had first class, (24) students had second class upper, (52) students had second class lower, (17) students had third class and (2) students got pass. With the bachelor of education social science, out of (178) graduands, (32) students had second class upper, (98) students had second class lower, (47) students had third class and only a student got pass. For bachelor of education home economics out (121) graduands, only a student had first class, (23) students had second class upper, (77) students had second class lower (27) students had third class and (5) students had pass.

Also looking at bachelor of education physical education out of (120) graduands, a student had first class, (37) students had second class upper, (59) students had second class lower, (32) students had third class and only a student had pass.

In bachelor of education basic education, out of (169), (2) students had first class (52) students had second class upper (77) students had second class lower (34) students had third class and (7) students had pass.

In 2013, according to congregation brochure of university of education Winneba, out of (150) students who graduate from bachelor of art education, only a student had first class, 49 students had second class upper, (86) students had second class lower and (14) students had third class.

For bachelor of education social studies, out of (138) students who graduate, (2), students had first class, (38) students had second class upper, (70) students had second class lower, (26) students had third class and (2) students got pass.

With the bachelor of education social science, out of (161) graduands, only a student had first class, (31) students had second class upper, (95) students had second class lower, (33) students had third class and only a student got pass.

For bachelor of education home economics out (113) graduands, only a student had first class, 23 students had second class upper, (62) students had second class lower, 23 students had third class and (4) students had pass.

Also looking at the programme bachelor of education physical education, out of (94) graduands, (3) students had first class, (33) students had second class upper, (48) students had second class lower, and (10) students had third class.

In bachelor of education basic education, out of (375), (3) students had first class, (121) students had second class upper, (170) students had second class lower, (69) students had third class, and (12) students had pass

In 2014, according to congregation brochure of university of education winneba, out of (188) students who graduate from bachelor of art education, (2) students had first class, (77) students had second class upper, (91) students had second class lower and 17 students had third class, only a student had pass.

For bachelor of education social studies, out of (131) students who graduate, students had first class, (29) students had second class upper, (77) students had second class lower, (22) students had third class, and (2) students got pass.

With the bachelor of education social science, out of (182) graduands, (3) students had first class, (63) students had second class upper, (80) students had second class lower, (33) students had third class and (3) student got pass.

For bachelor of education home economics out (112) graduands, (29) students had second class upper, (55) students had second class lower, (24) students had third class and 4 students had pass.

Also looking at bachelor of education physical education out of (107) graduands, (5) students had first class, (46) students had second class upper, (50) students had second class lower, and (5) students had third class and only a student had pass.

In bachelor of education basic education, out of (641), (7) students had first class, (159) students had second class upper, (249) students had second class lower, (178) students had third class and (48) students had pass. These indicate that in the past three years, the majority of students graduate with second-class lower division.

It is given this that, the researcher deems it necessary to conduct this research to find out the reason for such recurring results over the years.

## Objectives

The study was guided by the following objectives:

- To examine the effect of feeding on academic performance of residential students of the university of education–Winneba in North Campus.
- To examine the effect of school sanitation on academic performance of residential students of the university of education–Winneba in North Campus.
- To find out the effect of accommodation on academic performance of residential students of university of education–Winneba in North Campus.

## Research questions

- How does feeding of students affect the academic performance of residential students of the university of education–Winneba in North Campus?
- How does school sanitation affect students' academic performance of residential students of the university of education–Winneba in North Campus?
- How does student's accommodation affect the academic performance of residential students of the university of education–Winneba in North Campus?

**Purpose of the study:** The general purpose of the study was to establish the effect of living conditions on the academic performance of residential students of the university of education–Winneba in North Campus

**Significance of the study:** The research findings are beneficial to students and lecturers in university of education–Winneba, by communicating the existing gaps in the living conditions of students and how such living conditions affect students' academic performance. The findings are also an addition to the existing research information in the country. The findings will be used by other researchers to build on as they do their research in the field of discipline.

**Delimitation:** The study was conducted in the university of education–Winneba, situated in the central region of Ghana, and covered the residential students of the university of education–Winneba in North Campus. The focus of this study was on students since they are the ones mostly affected by living conditions in a school. The content scope of the study covered the effect of students' living conditions (feeding, sanitation, and accommodation) on their academic performance, in the university of education–Winneba [8].

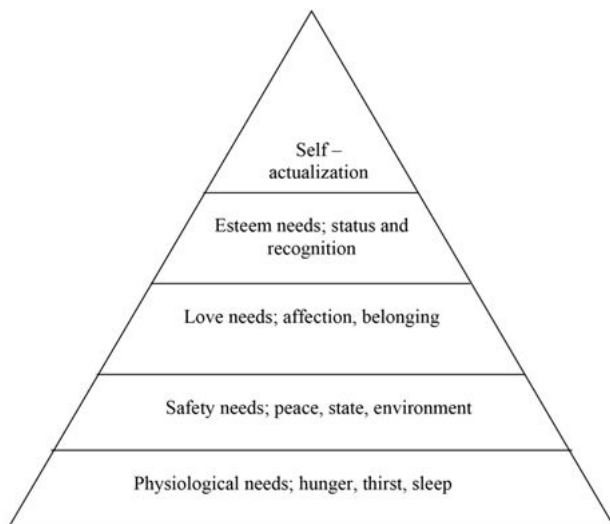
## Literature Review

**Overview:** This chapter reviews available pieces of literature about the study. It states the theoretical review, conceptual framework, and empirical review of the topic under consideration. In this review, the related literature shall be looked at under the broader headings; food and its importance to the body, the effect of feeding on student's academic performance, the concept of sanitation, The effect of sanitation on student's academic performance, the concept of accommodation and the effect of accommodation on student's academic performance. These the researcher believes will tackle the major areas that the research questions of this study seek to address and ultimately meet the set objectives of the study [9].

## Theoretical review

Maslow cited in Kasenene argues that physiological needs such as food and water are the primary drives that need to be satisfied before a person can realize any need for a secondary desire. According to Kasenene, Maslow advanced a theory of motivation in 1968 which argued that students will always need to learn after all the physiological needs are gratified. Maslow, therefore, concluded that learning is secondary to bodily needs and any attempt towards learning requires satisfaction of physiological or bodily needs as an unavoidable pre-requisite. In this study, such needs included feeding, sanitation, and accommodation.

Further studies by Maslow in human motivation led him to advance the theory of needs based on a hierarchical model as covered by Okumbe. According to Okumbe, there are psychological needs that include hunger, thirst, and sleep; the safety needs that include the desire for peace, smooth running of the state, and stable environment; the love needs that include belonging and affection/social needs; the esteem needs that include power, achievement, recognition, status, and self-actualization where one achieves what he wants. This theory can be illustrated diagrammatically as seen in Figure 1.



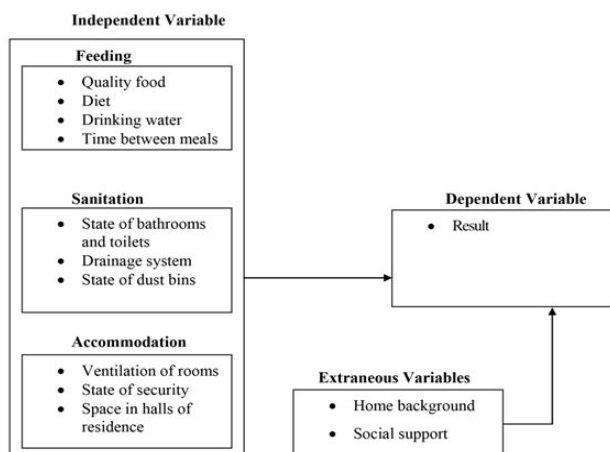
**Figure 1.** Maslow's Hierarchical model of basic needs.

All the above needs were summarized into students' living conditions which include feeding, sanitation, and accommodation covering the physiological needs of man.

Maslow's theory of needs based on the hierarchical model can be applied in a school setting where hunger, thirst, and sleep could have an impact on the well-being of a student. Once the physiological needs are met, students can improve their academic performance [10].

## Conceptual framework

The relationship between the independent and the dependent variable is illustrated below (Figure 2).



**Figure 2.** A framework showing an interrelationship between students' living conditions and academic performance.

The above Figure 2 conceptualizes that students' living conditions affect their academic performance. Feeding, sanitation, and accommodation are the primary drives that need to be gratified for learning to take place. To achieve academic excellence, the minds of students should be healthy and should exist in a healthy environment where they can access adequate meals, stay in a clean environment and sleep comfortably. In that way, students will be in a better position to excel academically [11].

## Food and it important to the body

Food is a term used to refer to any substance taken into the human body for any or all the following purposes; to provide energy, serve as body material and regulate body processes.

Sarkodie defines food as a substance that when eaten, digested, and absorbed by the body, produces energy, growth of tissues, and regulates body processes. He explained that nutrients are chemical substances in food that provide energy by biochemical reactions and therefore the study of the processes of growth, repair, and maintenance of the living bodies resulting from the intake of food [12].

According to Adigbo and Maddah, food is defined as anything solid or liquid that when eaten and digested promote growth, repairs worn-out tissues, provides heat and energy, fight against diseases and infections, and regulates the body processes. This means that anything that gives you energy and also promotes growth or protects the body against diseases is food. More often, we eat food to satisfy our hunger but there are many things that we eat and drink that really cannot be regarded as food because they do not perform the function mentioned above thus putting an individual under ill-health. It is important to eat food that provides the entire required nutrient needed by the body in the right proportion which may result in the total development of an individual to carry out his or her daily activities smoothly. Biologically, food contains a certain substance that makes the body become energetic and work better. These substances in the food, called nutrients, nutrient make you grow, repair worn-out cells, provide energy and also protect the body against diseases, for this reason, that is important for students to eat foods that provide the entire nutrient needed by the body in a right proportion which is said to be a balanced meal or diet. Nutritious foods form a major part of the growth and development of an individual, being physical and psychological. Nutrition should be seen as a core course undertaken by all students so that students will get in-depth knowledge about what to eat [13].

Costsum is of the view that in a man's life; there is the need to play much premium to nutrition to turn the dream of healthy adulthood into reality. According to Wardlaw, Worthing, and Robert., nutrition is the science of food, the nutrient and substance, their action, interaction and balance to health and diseases and the process by which the organism ingest digest, absorb, transport, utilize and excrete food substance. Mehas and Rodger defined Nutrition as a scientific understanding of how food is used by the body. Clark and Herbert also see nutrition as a study of the chemical composition of food and how the body uses food. Microsoft Encarta, nutrition is the study of how food affects the health and survival of the human body. Encarta suggests that human beings require food to grow, reproduce and maintain good health. According to the above view testify that food is primarily necessity of life hence student feeding needs should be taken into consideration so that they may look healthy all the time for studies. According to King and Burges, an adult needs plenty of legumes, staple food, vegetables, and fruit to give them fiber, which helps to protect them from some of the disorders of over nutrition. Recommended daily nutritional requirements vary according to the individual. Men, women, and children of different ages and weights with varying metabolic rates and activity levels need a slightly different amount of important nutrients to remain healthy and fit. Yet there are some key vitamins and minerals that are important for all people, regardless of individual circumstances. William is of the view that the nutritional needs of adult-centered on energy, protein, and the micronutrient. The above views indicate that every food eaten by the student should contain the right amount of energy, protein, micronutrient (vitamin and minerals) so that they will always look strong and healthy. Even though there are recommended daily nutritional requirements for each person, it is pertinent to eat a balanced meal all the time. The essential aspect of taking a balanced diet is to promote growth, repairs worn-out tissues, provide heat and energy, fight against diseases and infections, and regulate the body processes [14].

Effect of feeding on students' academic performance: Feeding is very important in the life of learners since it affects students' thinking and intellectual development. It takes a central position in institutions that operate a residential programme for students. Food, therefore, plays an important role in the learning process.

Educational institutions in Ghana are required to ensure that students feeding is well catered for to pursue their educational aspirations comfortably. Nyamwaya and Oduol in their study about health education assert that food is important for good health and proper growth and development of the body. They concluded that if people eat very little or the wrong foods they become weak, get sick easily, and could even die. To them, a balanced meal should consist of different types of foods, energizes and protects people from falling sick easily [15].

Kabanza recommended to institutional authorities that the nutrient value of foods should be considered during food selection to avoid nutritional deficiencies. Based on the view expressed above by various authorities, although university students are not fed by the university authorities, the student should ensure that any food they eat should contain the required nutrient for the body to become healthy, obtain enough strength, repair worn out the tissue to prepare their mind for academic work. This is asserted by Mathews, in a study on breakfast cognition found out that a morning meal is strongly related to improved learning, memory, and physical health of children. However looking at the limited financial status of most parents in Ghana, the huge sum of fees most universities demand cannot be paid left alone given enough money for their ward for food, owing to this most students take breakfast at noon. This factor could lead to poor performance of students. Poll and Matthew's study suggests that omitting breakfast interferes with cognition and learning. Doris also reports that there is a relationship between hunger and classroom performance. According to Doris, as the time between meals increases, concentration reduces. In this case, students' attention is directed on how to satisfy hunger and later this can generate anger in the student leading to absenteeism in class either physically, mentally, or both. Kleinman, et al.'s analysis showed that virtually all behavioral, emotional and academic problems were more prevalent on hungry children. Aggression and anxiety were found to be associated with hunger, leading to psychological dysfunction in students.

Kleinman further observed that hungry students are likely to be depressed, anxious, functioning poorly, have poor grades, absent from school, and inattentive in class. Such students lack concentration in class because of the psychological and physiological disturbance inflicted on them by hunger. It is difficult for students to cope with learning demands on empty stomachs, especially in those homes where a good supper or breakfast is considered luxuries. This hunger which causes low concentration in class may be one of the causes of poor performance among residential students of the University of Education Winneba in North Campus, a fact which this study set out to establish. According to American Medical Association if the necessities of life are provided, parents and educational institutions that invest in the mental and physical health of their ward give them a good start in life that can never be replaced.

When students understand the importance of Education then learning becomes an easy it is a matter of giving food to students; the food should be fully balanced and adequate. Ssewankambo cited Turner et al. who emphasized that an adequate and full-balanced diet is vital in ensuring young people's proper growth and learning. When students eat the right foods, sickness is prevented and no retardation is experienced. Whyte argues that food inadequacies can be indicated by continuous mental, physical, energy, and weight losses and thus affects students' academic performance. A monotonous diet (kenkey and fish) does not provide all the necessary nutrients needed for healthy living, which is the only common food in Winneba. Consequently, students have often become sick due to the lack of specific food values in their diets. Ssewankambo argued that individuals who use their brains like students need to have proper feeding to boost their thinking and reasoning capacity. In other words, students need not rely on carbohydrates food only but should also eat enough fruits, vegetables, and enough proteins. Dimmatteo sheds more light on the kind of feeding appropriate for a hardworking student. Dimmatteo maintains that every student should maintain sound nutritious diets by avoiding salty processed foods and limiting the intake of fats. They should eat lots of fresh fruits and vegetables and whole grains. Furthermore, they have to drink low-fat milk and eat fish, chicken several times a week. However, these nutrients and diets seem to be out of reach by many tertiary students since the government pays less attention to them. Accordingly, Awake points out that eating is the whole essence of life and indeed this confirms the saying that "you are what you eat". This suggests that students do not need to regard eating as a pleasant experience that only satisfies hunger but also as a way of preventing ill health that could affect their quality of learning Food Agricultural and Organisation (FAO). Indeed, if students do not feed well, they cannot excel academically. The health of human beings largely depends on the quantity and quality of what they eat and drink. Fruits and cereals are major sources of vitamins C therefore they should be served daily. However in developing countries, fruits are not eaten daily and in case any are eaten, they are too little to satisfy one nutritional requirement of students.

On the contrary, applicants with higher results in their entry qualifications should perform better at degree level thus admission points affects the academic performance of undergraduate students. In Ghana today, the main admission criteria to universities are prior performance either at WASSCE, O' level, at Diploma or mature age examinations. According to the views of the authors above, students who get good grades at the secondary level are expected to perform better at the tertiary level but this may not be the case due to certain factors which may hinder people's performance. One of such factors is the student taking food with insufficient nutrients retard student's intellectual quotient which results in low thinking capabilities, reasoning thereby affecting their academic performance of the student. If students do not get all the nutrients required, they may not perform up to the expected standards. Ideally, Ghanaians do not often differentiate between foods for breakfast, lunch, supper. Even leftover food from the previous evening's meal might be eaten for breakfast the following day. Fruit normally does not form part of the normal meal in a Ghanaian home. They are usually eaten as snacks when they are in season and are cheap too. Many of our food choices are affected by current trend in living but to keep ourselves healthy alive as human beings then we cannot eat anything we choose. Besides, the hygienic and proper way of handling food also has great importance in the prevention of food contamination and food poisoning? Green Dove is of the view that food contamination is equally a serious environmental health problem. Most food prepared for sale is not within clean places. Food is often exposed to flies and dust, thus contaminating the food. In order instances, plates and drinking cups are shared by many people thereby encouraging the spread of diseases like cholera and tuberculosis. In warm conditions, germs breed rapidly digesting some of the protein for their use. Such food is taken in, and diseases like typhoid, dysentery, and cholera among others are likely to be contracted. Food preparation on campus which are not guided by hygienic regulation and enforced by School health education programmer and support by public health inspector from local health authority may cause ill-condition among the student which can affect student class attendance, encourages absenteeism which results in low academic performance among infected student.

**The concept of sanitation:** The Encyclopedia state that cleanliness makes one feel better and protect one from illness. It further says that one feels better when one's surroundings are neat and clean. All dirt, dust, and refuse contain germs that cause diseases and by keeping ourselves and our surroundings clean, we help to protect ourselves from diseases that germs cause. Maintenance of good health does not only depend on adequate feeding, clothing, shelter, exercise, and rest but also involves developing and maintaining a good standard of cleanliness and sanitation in the environment. Sanitation may be seen as a way of life. The World Book Encyclopedia also defines sanitation as a field of public health. It involves various efforts to control diseases. Sanitation activities involve personal cleanliness which helps protect against diseases. According to Asare, Quartey and Amu, Sanitation involves the quality of living that is expressed in a clean home, clean neighborhood, and community and which comes from within the people who live in the neighbourhood. This means that sanitation in its totality is not an individual affair, even though the individual has a major role to play. Brew et al. are on the view that sanitation refers to the practical application of measures to safeguard and improve health. Diseases and germs are carried into our homes by pests such as flies, cockroaches, rats, and other insects and domestic animals.

According to Asare, sanitation is a hygienic obligation observed by the individual to promote good health. These include the supply of good water, proper handling of food, keeping the general environment clean by properly disposing of waste, and extinction of rodents and other disease-transmitting insect. She further went on to state that failure to observe these obligation result in the spread of diseases like malaria, fever, diarrhea, dysentery, and cholera. The health of a person does not necessarily depend solely on eating nutritious food. The environment also contributes a great deal to the individual's health. According to Brew and Ekuban environment includes the household surrounding and the air we breathe thus an unhealthy environment results in poor health. Any person who found him or herself in an unhealthy environment is not physical and mentally strong in the sense that most airborne and water-borne

diseases are easily derived from such areas. Several human activities and attitudes of men such as selling, eating, illegal mining, and others put the environment into an unhygienic state. In Ghana few dustbins and refuse damp are seen in a certain area so this makes people litter around, throw rubbish into water bodies, defecate anyhow, and even see the passing of urine as something that can be done everywhere forgetting that it can cause offensiveness Smell in the environment. Apart from the sanitation day, the government has set aside to be observed and numerous educations on social media, proper mechanism should be put in place to ensure a clean and healthy environment. Else the government will end up investing more in medical facilities rather than sanitation.

**Effect of school sanitation on students' academic performance:** School sanitation is very significant in the life of a student as Ddungu notes that general cleanliness is the foremost requirement for improved sanitation. The floor should be clean, windows washed and walls maintained clean. Attention should be given to the general drainage system, water supply, and toilet facilities. World Bank reports that in most developing countries, the sanitary conditions are often appalling, characterized by the absence of a properly functioning water supply, sanitation, and handwashing facilities. A report by United Nations International Children's Education Fund (UNICEF) showed that around 5.4 million youths worldwide do not have access to safe drinking water and use mainly unprotected surface water from rivers, ponds, or dams. Findings further revealed that over two million youth did not have access to any kind of toilet facility. This lack of safe water, poor hygiene practices, and lack of sanitation services were reported to be major causes of morbidity among students. Inadequate access to safe water and sanitation services coupled with poor hygiene practices kills and sickens thousands of people every day and leads to impoverishment and diminished opportunities for thousands more. When it comes to schools, the World Bank warns that schools that lack access to basic water supply and sanitation services will have an increased incidence of major illness among students. Poor health is an important underlying factor for low school enrollment, absenteeism, poor classroom performance, and early school dropout.

The state of environmental report concurs with the above as it reports that sanitation-related diseases like malaria, diarrhea, worm infection, eye infection, and skin diseases account for roughly half of the entire outpatient visits in the country and are the major cause of mortality and morbidity. Medical centers can affirm this since these centers keep on receiving sick students. The common disease treated is malaria since stagnant water which is a breeding ground for mosquitoes is part of the school compound and this is all because of poor sanitation.

Sanitation problem at the University of Education, Winneba do not look different from the above view in the extent that lavatories in North Campus are inadequate, have fewer washing facilities, poor drainage system and lack safe water for drinking. In Simpa block D specifically, the state of the washroom is very appalling. There is no evidence of regular cleaning and the hall does not have enough cleaning materials even most of the urinals are blocked and learners are forced to use outside the urinals and the sight of stagnant urine is common in most halls. It is however not clear whether the same situation prevailed in other halls in the University of Education Winneba. This prompted the researcher to investigate whether the findings are specific to only North Campus.

Once sanitation is substandard, occupants are likely to spend more time in health facilities. This, therefore, makes the environment unsafe places where diseases are transmitted with mutually reinforcing negative impacts for the dwellers in these context students and schools developments. Ddungus's study conducted in Rakai pointed out that, poor sanitary conditions make people accustomed to poor hygiene which is dangerous to the psychological upbringing and the learning process of students.

An investigation conducted by Njoku which aimed at conditions affecting quality living and successful learning revealed that a clean environment allows students time to concentrate on reading books usually in a silent environment. These revelations were later confirmed by UNICEF which reiterated that good sanitation and hygienic standards influence the growth and development of the child, school attendance, and the rate of school dropouts.

On the contrary, Some eminent scholars namely Hansen and Mastekaasa, see the social-economic status as one of the major factors affecting the academic performance of students. It is believed that low social-economic status negatively affects academic achievement because low social-economic status prevents access to vital resources and creates additional stress at campus whilst students from high social-economic status have everything at their disposal so they are likely to excel well academically. Even though students from affluent backgrounds stand the chance of excelling academically yet living in an unhygienic environment to study can also result in a pandemic which can cause low student attendance, absenteeism, high mortality, and others. It is obvious that good health leads to a healthy body and a healthy body produces a sound mind which allows students to become active in studies thereby reflecting in their academic performance. The cornerstone of healthiness is cleanliness, indeed, the healthier you are the greater your potential for effectiveness. Concerning some major factors that affect students' academic performance positively, one cannot omit sanitation because for students to be healthy personal hygiene and sanitation should be in place to eradicate some common illnesses, especially malaria which affects students negatively. According to the university of education Winneba campus lens 2014 to 2015, page 22 states categorically that the total population of 3106 affiliates of Simpa halls, was one of the challenges that militate against sanitation around the four corners of the hall. These made them organize numerous cleanup exercises at the various blocks in a way of improving the hygienic condition among students. In their report, the organization of cleanup exercise aims at promoting health as well as the academic performance of the affiliates. Healthy is seen as the ultimate goal as well as a great mission to achieve every individual vision in this human race, even though death they say is inevitable but sanitation seeks to be a vessel that causes numerous sicknesses around the environment. It is also a major factor that reduces effectiveness in human life. If student sanitation problem is not recognized, then from time to time students may contract a mild or severe illness that interferes with their studies on campus and eventually result in premature death from unpredicted health problems.

## The concept of accommodation

According to lay man's view, accommodation is a place to sleep. But such place should deserve good housing which provides facilities, enough space for people to have privacy and freedom. Accommodation is simply means Housing. The concept of housing, therefore, means more than a house or a home. It refers to a community's houses and the general environment, which make the place habitable. This means that in addition to the houses, there should be such amenities such as clinics and health centers, schools, markets, shopping centers, recreational centers durbar grounds, places of convenience, and other facilities which will improve the health, social and economic lives of the people in the area. Brew and Ekuban are also of the view that "housing refers to as a physical structure that man uses for shelter and environment of the structure including all necessary services, facilities, equipment and devices needed and desire for physical and mental health, social wellbeing of the family and individual". House should be given protection from the weather, be reasonable, fireproof, offer protection from intruders, and provide for health, comfort and enjoyment. According to encyclopedia, the primary objectives of housing are to provide healthy, safe, and sanitary shelter and located to meet the educational, cultural, recreational, and employment needs of the inhabitant. The housing environment must also be such that transmission of communicable diseases is prevented, good water should be present, sewage disposal must be effective, and the collection and removal of garbage must take place under sanitary conditions.

Kyereme is of the view that "we get satisfaction from consuming housing." We all feel satisfied when we can comfortably sleep in a place we call our home. Nobody wants to become homeless and sleep on the street, under bridges or card boxes. Hence adequate housing is one of the basic needs we all want to feel fully satisfied in life. Some may choose or can only afford to rent a room in a house, a full house or an apartment while others may build or buy their own home".



Craig also of the view that the living space and facilities within the home must meet the basic needs of the people who live there. The space must provide for the functioning of living: Eating, playing, sleeping, cleaning and grooming, dressing, working, being alone, socializing, and enjoying leisure time and recreation. The physical environment must support the acceptable standard of safety, health, cleanliness, and non-pollution. It must provide protection and security from intruders. He further states that adequate space for living is important to every general well-being. It provides the area in which we carry on the functions essential to daily living—cooking and eating, sleeping, and personal care. Living space plays an important part in privacy, interest, and socializing. The space in our home is our living space and it is the area in which we do most of our living. As a result, much emphasis should be playing on space for indoor and outdoor. From the above views, a place to lay one's head after a hard day's academic work or to settle in after a period of reading and researching is by no means a necessity of life. Indeed shelter is acknowledged as a right of every citizen, among other social services like education, health, security, and protection of personal life. And this is the more reason why the United Nations-mandated all member countries of the world to pay priority attention to the housing sector with the view of ensuring good homes for the mass of people. These are some of the facts that this literature review sought to look at because if the right of the student is denied, it has an adverse effect and in that various dimensions should be looked into.

Effect of accommodation facilities on academic performance: The Southeast Asia conference held in Madras as cited by Nabawanuka revealed that accommodation is a vital factor in enhancing students learning. The same source recommended that if students are to make the most of their educational opportunities, it would be important to have adequate facilities for accommodation, private study, community life, and healthy recreation. Brook revealed that good accommodation offers students excellent opportunities for learning and social interaction with fellow students from varying social backgrounds. When students interact they learn new ideas which help them to develop all the three domains of the psychomotor, affective, and cognitive domains. This will therefore widen their capacity to learn and it takes away the fear to learn therefore making a student ready to learn and even consult teachers or those with knowledge about the subject. Vespoor was therefore right when he said the quality of Education in Africa has declined because of inadequate facilities, poor student welfare services, and lack of experienced senior staff that can offer academic guidance and student welfare services to institutions.

Kasule puts more emphasis on insecurity by lamenting that students residing in insecure areas live in constant fear of theft which adversely affects their academic performance. Lyons firmly contends that noisy and overcrowded residences with inadequate security and lighting at night are the common examples of physical environments that undermine students' ability to engage in their studies. The overcrowded residences of students plus the minimal supervision and insecurity may be one of the factors that affect students academic performance.

The facilities inside the rooms of residence should be adequate. Heath and Mendell put it that low ventilation rates and less daylight may reduce the performance of the occupants. This implies that buildings alone are not enough but they should have proper ventilation and light to bring about the maximum performance of occupants. Ventilation in Halls and Hostels should see as paramount importance to human health. The presence of fresh air in rooms of residence also helps to control the communicable disease so that students can learn in a conducive environment.

Something that cannot be neglected when looking at students' accommodation is the security level on campus. Creating a secure environment makes students feel free to move around the boundary of the campus without fear. With the respect, students have no fear to stay overnight to learn and also walking to their various rooms without any harassment. Moreover, the guarantee of students' security against fire outbreaks is important. Upon series of research conducted most halls in the university of education have few fire extinguishers, with that the state of safety and security in schools is so worrying. Even the few that are available, students do not know how to use them. Every school needs to have fire extinguishers, spacious rooms, and lightning conductors.

However despite the above notify point, many prominent scholars such as. Considine and Zappala cite Sparkles, Kwesiga and Sentamu are of the view that school facilities determine the quality of the school, which in turn influences the achievements, and attainment of its student, thus Students' educational outcome and academic success is greatly influenced by the type of school which they attend. The school one attends is the institutional environment that sets the parameters of a students' learning experience. Depending on the environment, a school can either open or close the doors that lead to academic achievement. All these scholars agree in principle that schools do affect the academic performance of students but I bear to differ because the school environment which is not conducive for learning affects the student's academic performance. If the state of the halls and some hostels are in a bad condition with insufficient facilities and lacks ventilation, students will fall sick since airborne diseases such as tuberculosis are likely to operate in such an environment. According to Simpa hall president, the hall has five blocks containing 3106 affiliates which have put great pressure on the block, the amenities as well as the facilities. Ventilation at the block, lighting installation, electrical problems, security at the hall, and student accommodation problems were the main challenges at their turn of office. They try to address some by fixing the street lighting system around the Simpa-round-about and the electrical problem in the hall itself. They seek assistance from the school authority to eradicate the issue of ventilation at the blocks. Concerning rooms most non-residents get outside the campus is too far from campus so before they get to campus, then they are already tired psychologically which can result in low thinking ability and slow mental reasoning. Because of that, it may affect students academically since the mind looks tiresome. Since there is no guarantee to offer accommodation for all new undergraduate students who are studying for the full academic year so sometimes students look stranded in getting accommodation, and at the end found him or herself in a dilapidated building, which stand the chance of getting ill all the time. Can you imagine how you feel when you are well fed and clothed but have no place to stay or stay in an unhygienic place? You will not feel physically and mentally secure. This depicts that proper accommodation is an important basic need that ensures the total development of the individual. This means that where students stay has a great influence on their health, healthy bodies also promote sound minds which have a greater impact on their academic work. The explanations, suggestions, and recommendations stated above show that students' accommodation affects academic performance.

Serwa Adarkwa made some observations on some facilities in the home, every home needs basic facilities like kitchen, living rooms, bedrooms, bathroom, toilet, and others. According to liquor and accommodation act 1990 part 3, section 109, the requirement for the basic facilities in the home are as follow.

#### **Dormitory/Bunkhouse (Either bunks or beds may be provided)**

As a general rule the following percentages of clear floor space (*i.e.*, excluding beds and furniture) must be provided

(i) Where beds are provided clear floor space should be at least 50% of the total floor area; or (ii) Where bunks or a mix of beds and bunks are provided clear floor space should be at least 60% of total floor area. (b) Where bunks are provided they are to comply with the current Standard. (c) Each dormitory/bunkhouse shall also be provided with:

- Suitable pillows and mattresses sufficient for the number of persons that may be accommodated.
- A mirror (recommended size 600 mm x 450 mm).
- A waste container.
- An adequate form of safe heating.
- Appropriate window coverings/s.
- An approved latching device on the door.
- A night light, or some other approved form of illumination.
- Sufficient coat hooks, hanging space, and secure storage for each person.
- A flyscreen to at least one openable window.
- All mattresses and pillows provided with washable coverings.

## Standard room

(a) The area in a standard room occupied by the bed or beds, hanging space for clothes and dressing table shall be:

- Not more than 33 1/3% of the total area of the standard room; or
- Not more than 50% of the total area of any additional bedroom if access to that bedroom is through a bedroom complying with subparagraph (i).

(b) Each standard room shall be provided with:

- Appropriate window covering/s to ensure privacy.
- Bed/s with mattress/s of hotel/motel standard.
- Adequate good quality blankets, doonas or quilts, sheets, pillows, pillowslips, pillow protectors, and mattress protectors, all being of non-allergy producing materials, and where an electric blanket is provided it shall conform with the relevant Australian Standard.
- A bedside table or bedhead shelf and a bed light controllable from the bed.
- Adequate storage space for clothing, with sufficient clothes hangers, a dressing table, and an adequate sized mirror (recommended size 600 mm x 450 mm).
- A chair.
- A waste container, and an ashtray (where smoking is permitted).
- A means of adequate safe heating.
- One new cake of soap and one commercial quality towel for each traveler occupying the bedroom at the commencement of each occupancy and one washable or disposable bath mat, the towel, and a bath mat to be replaced daily during that occupancy by a new or properly laundered article.
- An insect-proof screen on at least one openable window and locking devices on all windows.
- One bottle opener per room, and one glass for each person that may be accommodated in the room.
- A luggage rack or equivalent device to accommodate a minimum of one large suitcase.
- Carpeting or other suitable floor covering or finish.
- Suitable towel hanging space for effective drying of towels after use.
- Where meals are provided to the bedroom, a suitable table or bench and seating.

## Bathing and toilet requirements

**Regarding bathing and toilet facilities:** "Private" means en suite or exclusively available to the occupants of a particular standard room.

"Shared facilities" means separate communal facilities are provided for males and females. Those facilities may be used by one sex at a time at the discretion of the licensee.

**Private and en suite bathing and toilet facilities shall be provided with:** (a) A mirror of sufficient size (recommended size 600 mm x 450 mm) fixed at a convenient height and provided with effective lighting; (b) A double coat hook; (c) Suitable towel hanging space for effective drying of towels after use; (d) A basin, shelving or bench space; (e) A soap holder in a shower recess or adjacent to a bath; (f) toilet paper dispenser kept supplied with toilet paper (g) A washable waste container in a bathroom were separate from a water closet; (h) A washable or disposable bath mat; (i) An impervious nonslip floor covering; (j) A water supply capable of delivering a supply of hot and cold water that is not subject to fluctuation in pressure, with hot and cold controls to be marked; (k) An extractor fan or other approved form of ventilation; (l) Sanitary bags and a lined/lidded bin in the water closet; and (m) A power point conveniently located adjacent to the basin and mirror.

## Shared bathing and toilet facilities

**Bathing facilities:** There shall be provided in a suitable position in each shower or bath cubicle: (a) A soap holder; (b) A dry area for storage of clothes, with a seat, or shelf, double coat hooks, and an area large enough for a person to dress/undress; and (c) A door to give privacy, fitted with an approved latching device.

**Toilets:** Communal toilets shall be provided (in each cubicle) with: (a) A coat hook; (b) A toilet paper dispenser, kept supplied with toilet paper; and (c) A door to give privacy, fitted with an approved latching device.

**General requirements:** Communal bathing and toilet facilities shall be provided with: (a) Impervious nonslip surfaces or floor coverings; (b) Benchtops wall and ceiling surfaces finished with an impervious easily cleaned material; and (c) Entrance screens, doors, and windows to provide adequate privacy for users capable of being easily opened in the case of an emergency. (d) Mirrors of sufficient size (recommended size 600 mm x 450 mm) and fixed at a convenient height above each hand basin; (e) Adequate shelving or bench space; (f) PowerPoint conveniently located adjacent to the basin and mirror; (g) Adequate coat hooks or towel rails; (h) Adequate lighting; (i) Sufficient paper towel dispensers (kept supplied with paper towels) or hand drying devices; (j) A washable waste container in a bathroom where separate from a water closet; and (k) An extractor fan or other approved form of ventilation. Indeed getting accommodation do not matter but rather the available facilities which meet the needs of the student should taken into account. This research could be used as a basis to improve the accommodation facilities at the University of Education Winneba.

## Methodology

### Overview

This chapter explains the research methodology which entails procedural strategies and methodologies mapped out to solicit requisite data needed for the research problem under study. It presents the research design employed, the population for the study, sample and sampling techniques adopted, data collection instruments, data collection procedure, and the method of data analysis.

### Research design

Phillips and Burbules, as cited in Creswell define research as "the process of making claims and then refining or abandoning some of them for other claims more strongly warranted". Kothari, asserts that research refers to "the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalizations for some theoretical formulation". Kothari further adds that research design must, at least, contain; a clear statement of the research problem; procedures and techniques to be used for gathering information; the population to be studied; and methods to be used in the processing and analyzing data.

Creswell is also of the view that research design is "plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation". Singh affirms this, he defines research design as "a mapping strategy for collecting the shreds of evidence, analyzing the pieces of evidence and reporting the findings". Numerous types of research designs are appropriate for different types of research projects. The choice of which design to apply depends on the nature of the problems posed by the research aims. Each type of research design has a range of research methods that are commonly used to collect and analyze the type of data that is generated by the investigations.

For this study, the researcher would employ qualitative and quantitative research approaches. Qualitative research explores attitudes, behavior, and experiences through such methods as interviews or focus groups. It attempts to get an in-depth opinion from participants, contrary to the latter, quantitative research generates statistics through the use of large-scale survey research, using methods such as questionnaires or structured interviews. The researcher used the qualitative research approach to collect data in the form of words (questionnaire) for the study while the quantitative research approach was used to deal with the data collected from the questionnaire statistically in the form of numbers and tables.



## Population

According to Sapsford and Jupp population consists of individuals or elements, and these could be persons, or events, or cabbages, nuts or bolts, cities, lakes, patients, hospitals or thunderstorms: Anything at all of the research interest, including observations, judgments, abstract qualities, etc. Sapsford and Jupp, add that "the first step in sampling is to define the population of interest clearly and accurately" (p. 27). "Research population is the characteristics of a specific group". On the other hand, the population is the entire mass of observations, which is the parent group from which a sample is to be formed. The population for the study comprises students of the University of Education Winneba in the Central Region of Ghana, with a target population of fifty (50) students which comprise students from at least five departments.

## Sample and sampling techniques

Sampling is the indispensable technique of behavioral research; the research work cannot be undertaken without the use of sampling. The study of the total population is not possible and it is also impracticable. The practical limitation: Cost, time, and other factors which are usually operative in the situation stand in the way of studying the total population. Sampling according to Sapsford and Jupp is a "set of elements selected in some way from a population" (p. 26). Sapsford and Jupp add that sampling aims to save time and effort, but also to obtain consistent and unbiased estimates of the population status in terms of whatever is being researched. In sampling the respondents selected should be as representative of the total population as possible to produce a miniature cross-section. "The selected respondents constitute what is technically called a 'sample' and the selection process is called sampling technique".

The sample for the study comprises all residential students with a sample size of fifty. The researcher used the simple random sample under the probability Sample for the study. According to Dawson "probability samples, all people within the research population have a specifiable chance of being selected. These types of sample are used if the researcher wishes to explain, predict or generalize to the whole research population" (p. 28). According to Kothari, simple random sampling from a finite population refers to that method of sample selection that gives each possible sample combination an equal probability of being picked up and each item in the entire population to have an equal chance of being included in the sample (p. 60). The idea is to pick out the sample about some criterion, which is considered important for the particular study. Kumar is also of the view that "A simple random sample is one in which each element of the population has an equal and independent chance of being included in the sample i.e. a sample selected by randomization method is known as a simple random sample and this technique is simple random-sampling." (p. 96). The researcher used the simple random sampling method because all students had equal chances of being selected.

## Data collection instrument(s)

To have accuracy, this study has gathered the desired data through primary sources of data. "Primary data is taken directly from the users". Kothari also asserts that "primary data are those which are collected afresh and for the first time, and thus happen to be original in character" (p. 95). Questionnaires were the primary data instrument used for the data collection by the researcher.

**Questionnaire method:** Yogesh defines a questionnaire as "a form which is prepared and distributed to secure responses" (p. 191). He adds that these questions are factual and designed for securing information about certain conditions or practices, of which the recipient is presumed to know. Kothari is also of the view that "a questionnaire consists of many questions printed or typed in a definite order on a form or set of forms" (p. 100). The sampled population was given a well-tailored set of questions (combination of closed and opened-ended questions) as an avenue to collect data to support the study. According to Dawson combination of closed-ended and opened-ended questions begin with a series of closed questions, with boxes to tick or scales to rank, and then finishes with a section of open questions for a more detailed response (p. 31).

**Data collection procedure:** For credibility, data was collected by the researcher to prevent the risk of bias or manipulation of the data from a second party. Because the research questions were well-tailored by the researcher to gather the requisite data to support the research. The researcher made appointments with the students for gathering information. The researcher administered questionnaires to all residential students on campus. In all, there were fifty (50) respondents.

**Data analysis plan:** The data gathered from the questionnaires have carefully been assembled mostly in a tabular form, synthesized, summarized, evaluated, and presented in the form of tables based on the views expressed by the respondents (students) by the researcher. Per the findings generated, recommendations have been suggested to ratify the effect of feeding, sanitation, accommodation facilities on the academic performance of the residential student at the university of education Winneba.

## Data presentation, analysis, discussion of findings

**Overview:** This chapter presents the data collected through the questionnaire with a residential student at the north campus of the university of education-Winneba. The purpose of administering the questionnaire was to ascertain whether the living condition of students affects their academic performance. Data gathered to form the questionnaires are analyzed critically in percentages using tables whereas the results are discussed descriptively to give the possible significance of the findings (Table 1).

**Table 1.** Gender statistics of the sample used.

Gender	Number of respondents	Percentage (%)
Female	30	60%
Male	20	40%
Total	50	100%

Table 1 shows the gender statistics of the respondents who participated in the study. In all, there were a total of fifty (50) students representing 100% of the sample from whom data was collected. Out of the fifty, there were thirty (30) females representing 70% and twenty (20) males representing 30%.

How does feeding of students affect their academic performance among residential student residential students of the university of education-Winneba in North Campus. The first objective was to examine the effect of feeding on students " academic performance. The variables considered which make up feeding were quality of food, balanced diet, the state of food on campus, and others (Table 2).

**Table 2.** Shows their frequency and percentage.

	Level of agreement or disagreement	Frequency	Percentage
The quality of food sold on campus is satisfactory.	SA	5	10%
	A	5	10%
	SD	30	60%
	D	10	20%
The environment in which food is prepared and sold is hygienic.	SA	0	
	A	10	20%
	SD	20	40%
	D	20	40%
There are a variety of food at the campus canteen.	SA	20	40%
	A	20	40%
	SD	10	20%
	D	0	
Provisions given to you by your parents can sustain you to the end of the semester	SA	5	10%
	A	0	
	SD	25	50%
	D	20	40%
Meals are always eaten three times a day.	SA	10	20%
	A	5	10%
	SD	25	50%
	D	10	20%
You always eat nutritious food daily.	SA	10	20%
	A	5	10%
	SD	20	40%
	D	15	30%
You have enough time to prepare food.	SA	5	10%
	A	10	20%
	SD	15	30%
	D	20	40%
The cost of living on campus has a direct effect on academic performance.	SA	30	60%
	A	15	30%
	SD	5	10%
	D	0	

**Note:** SA: Strongly Agree; A: Agree; SD: Strongly Disagree; D: Disagree

From Table 2, it was realized that thirty (30) students that represent 60% and 10 students represent 20%, strongly disagree and disagree respectively that the quality of food sold on campus is satisfactory while 5 students agree to that. This implies that the majority of the student is not satisfied with the quality of food sold on campus. Concerning the responses to the statement the environment in which food is prepared and sold is hygienic, (20) students 40% strongly disagree and disagree respectively whilst (10) students represent 20% agree. (20) students represent 40% strongly agree and agree respectively with the statement there is variety of food at the campus canteen but (10) student 20% go for strongly agree. With the statement provision given to the student by their parent sustain them to the end of the semester, (25) students represent 50% and (20) students which also represent 40% go for strongly disagree and disagree respectively whilst (5) students represent 10% strongly agree to that question. Next is the response to the statement, meals are always eaten three times a day, according to the table (25) students represent 50% and (10) students represent 20% strongly disagree and disagree respectively but (10) students represent 20% and 5 students represent 10% strongly agree and agree respectively. This that students may go back to lecture hall when they are hungry and this slows their thinking ability hence affecting their academic performance. Moreover, (20) students represent 40% and (15) students represent 30% disagree and disagree respectively, that student always eats nutritious food daily while (10) student represent 20% and (5) student represent 10% strongly agree and agree respectively

respectively. This indicates that students do not eat nutritious meals which may affect their health and good health provide a sound mind for learning. Again (20) students represent 40% and (15) students represent 30% respectively strongly agree and disagree with the fact that students have enough time to prepare food while (5) students represent 10% and (10) students represent 20% strongly agree and agree with. This means that students usually buy food from the roadside, campus canteen, and others which may cause sickness to students health since it is analyzed that the environment in which food is prepared and sold is not hygienic. In a nutshell, students strongly agree or agree that the cost of living on campus has a direct effect on their academic performance while a few students strongly disagree. This indicates (30) students represent 60% and (15) students represent 30% strongly agree and agree respectively but 5 students represent 10% disagree with that.

How does school sanitation affect students academic performance of residential students of the University of Education-Winneba in North Campus?

The second objective of the study was to investigate the effect of sanitation on students academic performance. The responses are indicated in Table 3 below.

**Table 3.** The study was to investigate the effect of sanitation on students' academic performance.

	Level of agreement or disagreement	Frequency	Percentage
Lecture halls are always tidy.	SA	5	10%
	A	20	40%
	SD	15	30%
	D	10	20%
The school environment is always kept clean.	SA	5	10%
	A	20	40%
	SD	15	30%
	D	10	20%
Dustbins on campus are enough and covered.	SA	5	10%
	A	10	20%
	SD	20	40%
	D	15	30%
There are enough washrooms for males and females on campus.	SA	5	10%
	A	10	20%
	SD	35	70%
	D	0	
Bathrooms and toilets are always kept tidy.	SA	5	10%
	A	0	
	SD	40	80%
	D	5	10%
There are facilities for handwashing after visiting the washrooms.	SA	5	10%
	A	5	10%

	SD	30	60%
	D	10	20%
The school has a well-stocked medical facility.	SA	5	10%
	A	10	20%
	SD	25	50%
	D	10	20%
The hall drainage system is always clean.	SA	0	
	A	5	10%
	SD	40	80%
	D	5	10%

**Note:** SA: Strongly Agree; A: Agree, SD: Strongly Disagree; D: Disagree

Table 3 shows that (35) students represent 70% disagree that there is enough washroom for males and females on campus whilst (10) students represent 20% and (5) students represent 10% strongly agree and agree respectively to that statement. About the statement, the bathroom and toilets on campus are always kept tidy, (40) students represent 80% and (5) students represent 10% strongly disagree and disagree respectively whilst (5) students represent 10% strongly agree. Again (20) students represent 40% and (5) students represent 10% strongly disagree and disagree with the statement dustbins on campus are enough and covered while (10) students represent 20% and (5) students represent 10% agree and strongly agree to. Since the majority total agree that dustbins are not enough and covered, it can lead to the easy spread of disease. It was discovered that there are no facilities for hand washing after visiting the washrooms because out of (50) students, (30) students represent 60% and 5 students also represent 10% strongly disagree and disagree

disagree with the statement there are facilities for hand washing after visiting the washroom whilst (10) students represent 20% agree to it. Concerning the school having well-stocked medical facilities, (25) students represent 50% and (10) students represent 20% strongly disagree and disagree correspondingly whilst (10) students represent 20% and 5 students also represent 10% strongly agree and agree respectively. Lastly, most students strongly refute the statement the hall drainage system is always clean in the sense that (40) students represent 80% and (5) students represent 10% strongly disagree and disagree respectively but (5) students represent 10% strongly agree. This implies that students are living in an unhygienic environment which can pose risk to their health since germs can thrive well in such conditions thereby transmitting diseases that can cause sickness among students (Table 4).

**Table 4.** The main method of rubbish disposal on campus.

The main method of rubbish disposal	Option	Frequency	Percentage %
	Thrown in a composite pit	25	50%
	Burning	25	50%
	Disposed-off by paid garbage collectors	15	30%

The results in Table 4 indicate that the main method of rubbish disposal on campus was thrown in a composite pit and burning. This was reported by (50) students out of a total sample of 75 representing 50%. Other methods include disposed-off by hired garbage collectors cited by the respondents.

Table 5 reveal the source of water in the university of education, precisely north campus, and is rated according to the main source commonly used. Table 5 suggests that pipe-borne water was the most common source of water used in schools with (100) percentages. Borehole water and bagged water are also other sources for the schools which represent 30% each.

**Table 5.** The main source of water on campus.

The main source of water on campus	Option	Frequency	Percentage %
	Pipe borne water	50	100%
	Borehole water	15	30%
	Bagged water	15	30%

How do students accommodation affect the academic performance of residential students of the university of education-Winneba in North Campus.

The third objective of the study was to investigate the effect of accommodation on students academic performance. One of the

factors that affect students academic performance is accommodation. Specifically, poor accommodation standards like low ventilation, congestion in the hall, poor lighting system, poor security, an insufficient supply of water may result in poor academic performance. The following items in the questionnaire on accommodation were presented to the respondents to express their level of agreement or disagreement and the results are given in. The responses are indicated in Table 6 below.

**Table 6.** The respondents to express their level of agreement or disagreement and the results.

	Level of Agreement or Disagreement	Frequency	Percentage
The university has enough residential rooms for students.	SA	0	
	A	5	10%
	SD	40	80%
	D	5	10%
There is enough space in the hall for you to do your daily chores.	SA	5	10%
	A	0	
	SD	35	70%
	D	10	20%
There is a constant supply of water to all the blocks in the hall.	SA	0	
	A	10	20%
	SD	30	60%
	D	10	20%
There is proper ventilation in the halls.	SA	5	10%
	A	5	10%
	SD	35	70%
	D	5	10%
There is adequate security on campus at all times.	SA	0	
	A	15	30%
	SD	25	50%
	D	10	20%
There is adequate space for keeping your belongings in the halls.	SA	0	
	A	10	20%
	SD	30	60%
	D	10	20%
Getting accommodation on campus has been a challenge to your academic performance.	SA	30	60%
	A	20	40%
	SD	0	
	D	0	
There is enough time for sleep and relaxation.	SA	10	20%
	A	10	20%
	SD	15	30%



D

15

30%

**Note:** SA: Strongly Agree; A: Agree; SD: Strongly Disagree; D: Disagree

The responses for questions indicated that most students strongly disagree and disagree while few students agree to the statement, the university has enough residential room for student which indicate (40) students represent 80% and (5) students represent 10% strongly disagree and disagree respectively but (5) students represent 10% agree to that statement. Regarding the statement, there is a constant supply of water to all the blocks in the hall, (30) students represent 60% and (10) students represent 20% respectively strongly disagree and disagree to it against (10) students represent 20% agree to that statement. It was also found that the ventilation issue at the hall looks so appalling in the sense that (35) students 70% strongly disagree while (5) students represent 10% and (5) students also represent 10% strongly agree and agree with the statement. Further, the security of students was also not guaranteed, it is indicated (25) that students 50%, (10) students 20% strongly disagree and disagree respectively while (15) students 30% agree that there is adequate security on campus at all times. It suggests that students had uncomfortable living conditions since the blocks at the hall had no adequate space for keeping belongs at the hall, and this was indicated (30) students represent 60%, (10) students represent 20% strongly disagree and disagree respectively but (10) students represent 20% agree. Getting accommodation on campus has been a challenge to students' academic performance in

the sense that (30) students 60% and (20) students 40% strongly agree and agree respectively. Looking at the response to the statement, there is enough time to sleep and relaxation, there was the anonymous decision by students because (10) students 20% strongly disagree, (10) students 20% disagree, (15) students 30% strongly agree and (15) students 30% agree. This implies that accommodation is so crucial for students in determining their academic performance. Congestion in halls results in the easy spread of diseases which as a result makes students miss lectures, a factor that may affect their academic performance.

### Respondents' opinion on academic performance

Academic performance in this study was the dependent variable. Measuring students academic performance in addition to the results, several items relating to academic performance were presented to students to provide their responses by indicating their level of agreement or disagreement on the various indications. Table 7 describes students responses.

**Table 7.** Measuring students' academic performance in addition to the results, several items relating to academic performance.

	Level of agreement or disagreement	Frequency	Percentage
The is enough adequate lecture hall and demonstration theatres for student.	SA	5	10%
	A	10	20%
	SD	35	70%
	D	0	
There are adequate resource materials at the library for academic work.	SA	10	20%
	A	25	50%
	SD	15	30%
	D	0	
There are enough study rooms in the halls.	SA	0	
	A	0	
	SD	40	80%
	D	10	20%
There is a constant supply of water for academic work in the department.	SA	0	
	A	10	20%
	SD	30	60%
	D	10	20%
Public address system has been installed in all lecture halls for use by lecturers.	SA	0	
	A	0	
	SD	45	90%
	D	5	10%

There is a high sense of satisfaction in your academic work at all times.	SA	0	
	A	5	10%
	SD	15	30%
	D	30	60%
Adequate feeding has a corresponding effect on academic performance.	SA	0	
	A	0	
	SD	40	80%
	D	10	20%
Proper sanitation has a corresponding effect on academic performance.	SA	30	60%
	A	15	30%
	SD	0	
	D	5	10%
Decent accommodation has a corresponding effect on academic performance.	SA	40	80%
	A	5	10%
	SD	5	10%
	D	0	
There is punctuality and regularity of attendance at lectures.	SA	20	40%
	A	10	20%
	SD	5	10%
	D	15	30%
There is a conducive environment on campus for learning.	SA	5	10%
	A	10	20%
	SD	30	60%
	D	5	10%
There is fair treatment for all students by lecturers at the department.	SA	5	10%
	A	25	50%
	SD	15	30%
	D	5	10%
There is active participation in all academic work.	SA	10	20%
	A	30	60%
	SD	5	10%
	D	5	10%
There is encouragement by peers and relative to maintain or improve academic standard.	SA	30	60%
	A	10	20%
	SD	10	20%

	D	0	
Their adequate supply of educational logistics for academic work.	SA	5	10%
	A	10	20%
	SD	25	50%
	D	10	20%

**Note:** SA: Strongly Agree; A: Agree; SD: Strongly Disagree; D: Disagree

Table 7 suggest that the university has inadequate lecture halls and demonstration theatres for student at the north campus since it was indicated that (35) students 70% strongly agree, (10) students 20% also agree while (5) students represent 10% disagree to the statement. Again the study reveals that there are not enough study rooms at the halls for private studies in the sense that, (40) students represent 80%, (10) students represent 20% strongly disagree and disagree with the statement, there are enough study rooms at the halls. This implies that students found it difficult to get a place to study on their own and this may affect their academic performance. Despite that, some departments like Home Economics and Art Education need a constant supply of water for their practical work. It was revealed that (30) students 60%, (10) student 20% strongly disagree and disagree with the statement that there is a constant supply of water for academic work at the department but (10) students represent 20% agree to that. Students also dispute the fact public address system has been installed in all lecture halls based on the analysis which indicate that (45) students represent 90% and (5) student represent 10% strongly disagree and disagree with the statement, public address system has been installed in all lecture halls for use by lecturers. Furthermore, students endure a low sense of satisfaction in their academic work all the time which was indicate that (30) students 60%, (15) students 30%strongly disagree and disagree respectively with the statement there is a high sense of satisfaction in student academic work at all time while 5 students which represent 10% agree to it. It was indicated that (40) students 80%, (10) student represent 20% strongly disagree and disagree respectively to the statement, adequate feeding has a corresponding effect on academic performance. Next is the students' response on proper sanitation which has a corresponding effect on academic performance. With that (30) students 60%, (15) students 30% strongly agree and agree to it whilst (5) students 10% strongly disagree with that statement. It is also analyzed those (40) students which represent 80%, 5 students which also represent 10%strongly agree and agree respectively to the statement, decent accommodation has a corresponding effect on students' academic performance but (5) students 10%went for strongly disagree. The respondents on the statement there is a conducive environment on campus for learning, it was indicated that (30) students 60%, (5) students 10%strongly disagree and disagree with it while (10) students 20%, (5) students also strongly agree and agree with that statement. Looking at the statement there is an adequate supply of educational logistics to the student, it was expressed as (25) students which represent 50%, (10) students also represent 20% strongly disagree and disagree while (10) students 20%, (5) students 10% strongly agree and agree respectively. Based on the above analysis it is found that sanitation, and accommodation have a corresponding effect on students' academic performance which may affect the output of work all the time.

## Conclusions

Overview: This chapter gives a summary of the study conducted, conclusions drawn, and proposed recommendations from the findings. The summary, conclusions, and recommendations are presented by the objectives of the study.

## Summary of the findings

In summary, the purpose of the study is to establish the effect of living conditions on the academic performance of residential students of the university of education–Winneba in North Campus. The study was guided by the following objectives:

- To examine the effect of feeding on academic performance of residential students of the university of education–Winneba in North Campus.
- To examine the effect of School Sanitation on academic performance of residential students of the university of education–Winneba in North Campus.
- To find out the effect of accommodation on academic performance of residential students of university of education–Winneba in North Campus.

The study was revealed based on Maslow's hierarchical basic needs of man and conceptual framework of independent variables such as quality food, drinking water, the time between meals, state of dust bins, ventilation of rooms, state of security, space in the halls of residence and others that influence the dependent variable (academic performance) of a residential student of the university of education–Winneba in North campus. Books from several authors relating to the topic under study were read and reviewed.

For this study, the qualitative and quantitative research design was employed so that the findings would be presented in the form of a frequency table and percentages. Questionnaires were the data collection instrument used in gathering data for the analysis. The questionnaires were administered to (50) selected students residing in the Halls irrespective of the department. The data gathered from the questionnaire were summarized, evaluated, and presented in the form of tables in percentages.

Concerning the analysis on feeding, the majority of the students (70%) were of the view that the quality of food, balanced diet, state of food on campus as well as the environment within which the foods are prepared and sold is not hygienic. In addition (70%) of students disagree that the school environment is not conducive for learning while the facilities such as dust bins, refuse dump sites and others are also inadequate to meet the student population. Moreover, the analysis on the academic also reviews that (80%) of the student also disagree that the hall of residence, the facilities within are also inadequate to accommodate the total number of students the University of Education–Winneba admits each academic year.

## Conclusion of the findings

From the findings, it was concluded that feeding, sanitation, and accommodation have a corresponding effect on student academic performance.

## Recommendations

From the finding, it was recommended that; the university of education-Winneba should lobby for a feeding grant from the government so that they can provide the student with a balanced diet and a course like food and nutrition should be considered as a general course. Again, the university of education-Winneba should organize health education talks to sensitize students on hygiene. The student representative council should liaise with some non-governmental agencies to improve the infrastructural level of the university of education-Winneba. The ministry of education, youth and sports should develop basic requirements and minimum standards for halls and disseminate them to all universities and ensure that they are implemented and this would improve on the accommodation in the universities.

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