

UNIVERSITY OF EDUCATION, WINNEBA

**EXPLORING HEADTEACHERS ROLE IN THE IMPLEMENTATION
OF SANITATION AND HYGIENE SERVICES IN LATEH PRESBY
SHS**



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OF SANITATION AND HYGIENE SERVICES IN LATEH PRESBY
SHS**



**A thesis in the Department of Educational Administration and
Management, School of Education and Life-Long Learning, submitted to the
School of Graduate Studies in partial fulfillment
of the requirements for the award of the degree of
Master of Philosophy
(Educational Administration and Management)
in the University of Education, Winneba**

JANUARY, 2023

DECLARATION

Student's Declaration

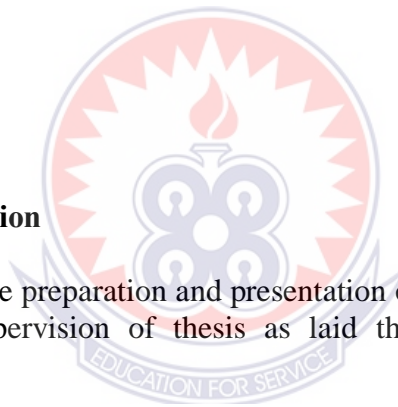
I, Anthony Owusu, declare that this thesis, except quotations and references in published works, which have all been identified and acknowledged is entirely my own work and it had not been submitted either in part or whole for another degree elsewhere.

Signature.....

Date.....

Supervisors' Declaration

I hereby declare that the preparation and presentation of this work were supervised by the guidelines for supervision of thesis as laid the down by the University of Education, Winneba.



Name: Prof. Kwame Odei-Tettey

Signature.....

Date.....

DEDICATION

I dedicate this thesis to my wife Mrs. Janet Owusu-Wireko and my children.



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This research work would not have come to successful completion without the contribution of certain personalities, since their role is worth mentioning.

My special gratitude and appreciation go to all who helped in diverse ways, and through their encouragement, I was able to go through the Master of Philosophy Educational Administration and Management course with success. I am highly grateful to Prof. Kwame Odei-Tettey, my supervisor, for his patience, direction and counsel in getting me through the thesis. My heart felt appreciation also goes to Dr Judith Bampo for his direction, guidance and encouragement to make this project successful.

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GLOSSARY

ARIs	Acute Respiratory Infections
BECE	Basic Education Certificate Examination
CLTS	Community-Led Total Sanitation
EMIS	Education Management Information System
GES	Ghana Education Service
IRC	Innocent Research Centre
J.H.S	Junior High School
JMP	Joint Monitoring Programme
MDG	Millennium Development Goal
MMDAs	Metropolitan, Municipal and District Assembly's
NTC	National Teachers Council
PRESET	Pre-service Training
SASS	School and Staffing Survey
SDG	Sustainable Development Goals
SHEP	School Health Education Programme
SHTS	Senior High Technical School
SPSS	Statistical Package for the Social Sciences
SSHE	School Sanitation and Hygiene Education
STH	Soil Transmitted Helminthes
SWH	Swedish Water House
UNCG	The United Nation Communication Group
UNESCO	United Nation's Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
VERC	Village Education Resource Centre
VIP	Ventilated Improved Pit
WHO	World Health Organization
WSSCE	Water Supply and Sanitation Collaborative Council

ABSTRACT

The main purpose of the study was to investigate the Influence of Head teachers' leadership roles in the implementation of sanitation and hygiene Services of Larteh Presbyterian SHTS in the Akwapim North Municipality in the Eastern Region of Ghana and establish the relationship between them. An interview was also used to gather information from the heads. All interviewees were approached purposively and voluntary were engaged at their own convenience time, place and unit of communication. Simple random sampling technique was used to select 5 respondents (heads of the school). The study adopted the interpretive paradigm because interpretivists believe that there is no one objective social reality and that there can be multiple realities. Findings from the study indicated that teachers are not happy with the way sanitation and hygiene are in the school, but they agree a lot can be done to ensure adequate sanitation in the school. Again, girls are more likely to attend school when they are on their period when there is safe water available, restrooms, and soap for handwashing. It is however recommended that there should be reinforcement of healthy lifelong behaviours in their families and communities. Again, teachers, parents, policy makers and guidance and counselling coordinators should ensure that appropriate measures should be put in place to ensure that there is adequate provision of sanitation and hygiene facilities in the school under the supervision of the head teachers



CHAPTER ONE

INTRODUCTION

1.1 Background to the study

School Sanitation and Hygiene Education (SSHE) is a topical area of interest from both political and social perspective (Snel, 2003). School sanitation and hygiene education (SSHE) comprise hardware and software components that are essential to produce a healthy school environment and support safe hygiene behaviours. The hardware components focus on sanitary conditions and facilities available in and around the school compound (e.g drinking water, excreta disposal, solid waste disposal facilities etc). The software components are the activities that promote conditions at school and practices of school staff and children that help to prevent water and sanitation-related diseases (UNICEF & IRC, 1998).

A focus on school sanitation affirms the fact that children have a right to basic facilities such as school toilets, safe drinking water, clean surroundings and information on hygiene. The availability and access to these conditions enable children to attend school, enjoy learning, perform better and educate their families, particularly, siblings on concepts and practices on sanitation and hygiene. It may also improve education and health of girls by reducing the number of days missed in school due to menstrual periods (Antwi-Agyei, 2003; Snel et al., 2017). In addition, sanitation and hygiene are essential for the survival and development of a country's population as it protects health and environment (Taylor & Maruyama, 2020).

However, more than 50% of the world's population uses untreated sanitation services, which endanger human health (United Nations, 2020). Also, 673 million people still practice open defecation (United Nations, 2020). In addition, schools often lack or have inadequate water supply, sanitation and hand washing facilities and that hygiene education activities are not linked to real practice. Approximately, 600 million schools and numerous households lack access to toilets and many basic sanitation services (United Nations, 2020). The world Health Organization and UNICEF joint water supply and sanitation monitoring programme report in 2020 showed that 584 million children had no access to basic drinking water service at their school, 698 million children lacked a basic sanitation service and 818 million children lacked a basic hygiene service at their school. Sub-Saharan Africa had the lowest rates for coverage of improved sanitation: less than half of schools had a basic drinking water service (44%), basic sanitation service (47%) and basic hygiene service (26%) (WHO/UNICEF, 2020). In West and Central Africa there has been limited progress toward increasing access to improved sanitation. The regions have an increasing number of people who practice open defecation. Also, sustainable access to water, sanitation and hygiene in health centres and schools is still a challenge. In the region, less than 50 percent of schools have access to water and less than 40 percent have access to adequate sanitation (UNICEF, 2020).

Ghana like many African populations faces constraints in providing access to safe water and sanitation (Gyabaah, Awuah & Ackerson, 2009). The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation state access to safe drinking water in Ghana at 86% while total access to sanitation is 13%. Safe sanitation coverage is as low as 8% in rural areas and this had been attributed to the widespread use of community toilets (WHO/UNICEF JMP, 2020). Although Ghana has made

enormous progress in the delivery of education for all, many Ghanaian schools do not benefit from a quality education and girls are disproportionately disadvantaged, especially during the transition to secondary education. The school environment is characterized by conditions including overcrowding, inadequate and lack of sanitation and water facilities and inadequate trained teachers and schoolbooks (The UN Communication Group, UNCG, 2017). In 2010, 56% of pre-schools and basic schools in Ghana had toilet facilities out of which less than half (49%) had access to water onsite. In an effort to improve access to safe water and sanitation facilities, extensive efforts are being made in Ghana to ensure universal access to safe drinking water and improved sanitation facilities by the year 2025 (GSS et al., 2015). For instance, the Ghana Education Service developed the School Health Education Programme (SHEP) Policy and Strategy Framework to offer general direction for school health programming (Ghana Education Service 2014). However, more than 9,000 basic schools in the country have no toilets and over 10,000 have no safe drinking water (Education Management Information System [EMIS], 2017).

Studies and initiatives based in schools have demonstrated the important roles that teachers and head teachers play in maintaining and improving sanitation services in schools. Teachers can positively provide knowledge on hygiene to students and also perform supervisory role in the school environment. Motivated students can then influence family members by sharing this information and this may accordingly change behaviour at the community level (Antwi-Agyei et al., 2017; UNICEF/IRC, 1998; World Health Organisation, 2019). There is a recognition that if teachers are not involved in school sanitation and hygiene practices, it may have a negative influence on school sanitation activities and the community at large (IRC, 2008; Ghana Education Service, 2014). Notwithstanding, the contribution of teachers in

ensuring access to sanitation, they may be obstructed when basic sanitation facilities are lacking in their school. For instance, female teachers may not be willing to work at schools without latrines, or might not show up for work, without this improvement in work and educational environment.

1.2 Statement of the problem

Availability and access to water, sanitation and hygiene is a human right, yet billions worldwide are still faced with daily challenges accessing even the most basic of services (The UN Communication Group (UNCG), 2017). Globally, 2.2 billion people lack access to safely managed drinking water, 4.2 billion people do not have access to safely managed sanitation service and 3 billion lack hand washing facilities (United Nations, 2020). Thus, the world is off-track in achieving goal 6 of the Sustainable Development Goal agenda - ensuring access to water and sanitation for all by 2030. Until the above stated proportions of the world population have access to the needed services, the world cannot meet the goals of inclusive Sustainable Development by 2030 (United Nations, 2020).

In Ghana, although there was an achievement of the erstwhile Millennium Development Goal for access to improved water supply, access to improved sanitation was not achieved. Statistics currently shows that less than two-fifths of Ghanaians drink safe water, two out of every five schools is without toilets and three out of five schools are without water supply (UNCG, 2017). In Ghana, the development functions of the Metropolitan, Municipal and District Assemblies (MMDAs) as stipulated by the Legislative Instruments and the Local Government Act, 1993 (Act 462) include the provision of sanitation facilities and services and waste management. However, these basic services have not been well performed by the MMDAs. This

situation is evidenced by low coverage of sanitation facilities in Ghana. In Akwapim North District where the study was conducted housing conditions including access to good drinking water, access to drainage and improved toilet facilities are inadequate. For instance, the majority of households in the Municipality used pit latrine (33.2%), followed by public toilet (29.2%). Also, about 5% had no toilet facilities and therefore resorted to bush/open fields (Ghana Statistical Service, 2014). Many secondary schools in deprived communities in Ghana are challenged with issues of poor sanitation and hygiene because many of them are without toilet and waste disposal facilities. This is a true reflection of what pertains in the communities where people defecate openly thereby polluting the environment; thus, creating unsafe and disease – prone locale. Hardly will one come across a dustbin let alone a hand washing facility in these secondary schools. Few schools with toilet facilities cannot also maintain them due to their deplorable state, owing to over usage by the members of the communities.

Table 1.1: Toilet facilities used in the Akwapim-North Municipality

Toilet Facility	Percentage
Pit latrine	33.2%
Public Toilet	29.2%
None	5%

Source: Author (2022).

This situation is not different in most schools in the study area. Importantly, a number of the few available sanitation and hygiene facilities are often in poor conditions. Lack of /inadequate basic sanitation coupled with poor hygiene is associated with diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and exacerbates stunting (World Health Organisation [WHO], 2020). Yearly, poor sanitation causes

432,000 diarrhoea deaths globally and about 827,000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene annually (WHO, 2020). The effect of poor sanitation on children cannot be over-looked. More than 1300 young children die each day or about 480,000 children die yearly from diarrhoea caused by unsafe water, sanitation, and poor hygiene (UNICEF, 2020). In addition, poor sanitation reduces human well-being and social and economic development due to related impacts such as risk of sexual assault, anxiety and lost educational opportunities (WHO, 2020).

There are several studies examining sanitation and hygiene services in schools. For example, in America, Loughnan, Bain, Rop, Sommer and Slaymaker (2016) investigated what impact existing data on water and sanitation have on menstrual hygiene management. Furthermore, Wholgenant et al. (2014) examined the sanitation in classrooms as well as the food preparation areas of children in child care facilities. Their aim was to find out if these spaces (classrooms and food preparation areas) were safe for the children. In Asia, Adukia (2017) explored the association between girls' educational attainment and the lack of sanitation infrastructure. Specifically, the author sought to investigate whether the absence of sanitation infrastructure in Schools in India impede educational attainment among young girls. Similarly, Ellis et al. (2016) also investigated water, sanitation and hygiene challenges to girls' menstrual hygiene management in key cities such as Manila, Masbate and South-Central Mindanao all of the Philippines.

Numerous studies in sub-Saharan Africa concentrate on the sanitation and hygiene problems in schools. For example, Alexander et al. (2014) investigated the life-cycle costs of school water, sanitation and hygiene access in Kenyan Primary schools.

Furthermore, Mainassara and Tohon (2014) investigated the health impact of the construction of latrines, clean water supply, and hand washing stations on students in Maradi, Niger. The situation is not different in the Ghanaian context. In Ghana several studies have also focused on sanitation and hygiene in schools. For example, Brempong, Harris, Newton and Gulis (2018) examined school-based hygiene facilities in all the public junior high schools in the Ejisu-Juaben Municipal Education Directorate. Furthermore, van den Ouden (2013) investigated the concept of school-led total sanitation in Ghana in Junior High Schools and contrasted it with community-led sanitation. Moreover, Gyabaah, Awuah and Ackerson (2009) also investigated sanitation in basic schools in the Tano South District. Their study's objective was to evaluate the district's sanitary facilities, including restrooms, urinals, and commercial waste disposal systems.

The studies in the Ghanaian context and those in countries sub-Saharan employ quantitative research methodologies and have predominantly focused on sanitation and hygiene facilities in schools and related health impacts (Appiah-Brempong et al., 2018; Alexander et al., 2014; Mainassara & Tohon, 2014; O'reilly et al., 2007). Although the use of quantitative methods helps to quantify the sanitation and hygiene facilities, they do not give a deeper understanding of the issues. Furthermore, the studies in Ghana have focused on basic school (primary and junior high schools). Thus, two gaps exist in the literature. The first gap is that studies on sanitation and hygiene have not been done using the qualitative method. The second gap is that most of the studies within the Ghanaian context are with respect to the basic school. Not many studies have been done with the senior high school in mind. These are the two research gaps that this study seeks to fill. The present study employs qualitative research methodology to examine the role of head-teachers in the implementation of

sanitation and hygiene services. The use of qualitative research methodologies will also give an in-depth understanding of the issue and thus provide culturally appropriate interventions for school sanitation. Also, the focus on a senior high school will provide some new dynamics of sanitation and hygiene in schools. Against this backdrop, this study seeks to examine head teachers' leadership roles in the implementation of sanitation and hygiene services in Larteh Presbyterian Senior high school in the Akwapim North Municipality, Eastern Region Ghana. The study area is selected purposively. I selected the topic because of the severity of the problem in this study area.

1.3 Purpose of the study

The study sought to find out how head teachers' leadership affects the implementation of sanitation and hygiene services, and to explore effective ways of implementing the sanitation and hygiene policy in Larteh Presbyterian Senior high school in the Akwapim North Municipality in the Eastern Region of Ghana.

1.4 Objectives of the study

The following objectives were formulated to guide the study;

1. To investigate the sanitation and hygiene conditions in Larteh SHTS
2. To find out the roles of head teachers in the implementation of sanitation and hygiene policies in Larteh SHTS
3. To investigate the policy implementation challenges that have compromised sanitation practices in Larteh SHTS
4. To explore effective ways of implementing the sanitation and hygiene policy to ensure better hygiene and sanitation conditions in Larteh SHTS

1.5 Research questions

1. What are the sanitation and hygiene conditions in Larteh Presbyterian SHTS?
2. What are the roles of head teachers in the implementation of sanitation and hygiene policy in Larteh Presbyterian SHTS?
3. What are the policy implementation challenges that have compromised sanitation and hygiene practices in Larteh Presbyterian SHTS?
4. How can the sanitation and hygiene policy be implemented effectively to ensure better conditions in Larteh Presbyterian SHTS?

1.6 Significance of the study

The focus on schools is imperative because schools are most important places of learning for children after the family. Schools also have a central place in the community: they are a stimulating learning environment for children and they initiate change (UNICEF/IRC, 1998). Availability of sanitary facilities in schools can act as a model while teachers can also function as role models. In addition, schools can impact communities through outreach activities. This is because schools are in touch with a large proportion of the households in a community through their students. School children can be exceptional health volunteers and messengers in their communities by transmitting health information to their peers, family and the community at large (UNICEF/IRC, 1998; Kerich et al., 2017).

Importantly, the availability of water, sanitation and hygiene facilities in schools has been linked to the achievement of the Sustainable Development Goals (SDGs) – in particular Goal 4 which aims to ‘ensure inclusive and quality education for all and promote lifelong learning’ and includes targets to build and upgrade education facilities that are child, disability and gender sensitive and provide safe and effective

learning environments for all and Goal 6 which aims to ‘ensure availability and sustainable management of water and sanitation for all by 2030 (UN General Assembly, 2015).

The significance of any study has two dimensions. The first is the significance of a study to practice. In this light, this study is therefore timely as findings could inform policy formulation to help achieve these global goals. The second dimension of a study has to do with theory. In this light, the findings from the study will add to the existing body of knowledge in both academic and professional fields in the sector of sanitation.

1.7 Organization of the study

This study is organized into five chapters. Chapter One discusses the introduction of the study and focuses on the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions as well as the significance of the study. Chapter Two discusses related literature on sanitation and head teachers’ leadership roles. Chapter Three discusses the research methodology of the study. Chapter Four presents and the data and analysis of the data. Chapter Five concludes the study and touches on the summary, conclusion and recommendation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The review of related literature is an important aspect of any research project as it generates a solid foundation for advancing knowledge, simplifies theory development, closes areas where large volume of research exist, and discover areas where research is needed (Webster and Watson, 2002). This chapter reviews the literature on the influence of head teachers' leadership roles in the implementation of sanitation and hygiene services. It delves into history, the need for head teachers' leadership roles in the implementation of sanitation and hygiene services, theories and concepts that underpin the issues of sanitation. It further covers related literature on sanitation, hygiene and education as well as the nature of school sanitation and hygiene facilities. It finally focuses on the roles of teachers in sanitation and hygiene practices. The first and second section deals with the theoretical framework and conceptual framework of the thesis and the third section reflects on the analysis of diverse viewpoints (Empirical framework) influence of head teachers' leadership roles in the implementation of sanitation and hygiene services

2.1 Theoretical framework of the study

The Transformational leadership theory and the Transactional leadership theory will serve as the theoretical framework for this research. Transformational theory posits that leadership is concerned with task and relationship and the leader is responsible for transforming individual interests of followers into the collective goal of the organisation by establishing a special relationship with them based on mutual respect. According to Yukl (2010) the individual leader is central and the organizational

results key but short term. Transactional leader functions in organizations with people but tend to be more focused on the task than relationships.

2.1.1 Transformational leadership theory

Developed by Burns (1978), transformational theory emphasizes an ideal leader's role in reaching organizational goals. Transformational theory posits that leadership is concerned with task and relationship and the leader is responsible for transforming individual interests of followers into the collective goal of the organization by establishing a special relationship with them based on mutual respect. A transformational leader is responsible for all the dimensions of the organizational goal. In school settings, these dimensions include visioning and setting educational goals and creating a congenial learning environment. The school head is expected to transform this goal into results by providing intellectual stimulation, offering individualized support, demonstrating best practices and important organizational values and high performance expectations (Leithwood, 1994 cited in Denmark, 2012).

The leader is considered to have better relevant experience and should lead the way to a positive change (Denmark, 2012). A transformational leader envisions a desirable future, articulates with followers how this desired future can be achieved and leads the way to the goals with determination and confidence. Delegation of task to followers is crucial and is done based on the conviction that though the organizational goal attainment is the end result, follower growth intermediates (Growth Consulting and Training Pte, 2016). A transformational leader anticipates a reciprocal process and trust is a key success factor. When followers trust and believe that they stand to receive some benefits from the leader they do more to improve themselves and also the organization.

2.1.1.1 Dimensions of transformational leadership

There are four dimensions of transformation leadership and they are:

a. Attributed idealized impact (Attributed Charisma)

This is a significant factor in leadership transformation. It demonstrates the perspective of the employee as the leader in terms of strength of impact, self-confidence, confidence in others, consistency and values that people strive to imitate. The leader has thus become a target of admiration, regard, and feeling of accountability, trust and increasing optimism (Avolio & Bass, 2002; Bass & Avolio, 1994).

Idealized influence behaviours include the leaders' values, beliefs, moral considerations, moral behaviours and selfless acts. An essential aspect of idealism is the establishment of a common vision. A transformative leader plays a part in assisting others think about the future (Jung & Avolio, 2000). This happens when inspiration is produced through conformity of personal values with the group's interests (Avolio & Bass, 2002; Jung & Avolio, 2000). Transformational leadership implies being tolerant and risk-sharing with followers. In a school situation, the headteacher could communicate clearly the vision and mission of the school to teachers, help teachers in preparing lesson plans, assist teachers to understand the syllabi and help them in the preparation of the scheme of work. Additionally, the head teacher should be tolerant, empathic, objective and just in managing in-school conflicts. The headteacher serves as a role model to many teachers so his or her moral values, conduct and personal values are of great significance to the teachers.

b. Inspirational motivation

For their supporters, a transformative leader sets an example. He or she communicates vision, fosters hard work, and clearly expresses significant objectives (Bass, 1994). Transformation leaders motivate others through purposeful, difficult tasks (Avolio & Bass, 2002). Arousing passion and optimism while inspiring team spirit (Bass, 1998) are major characteristics of a transformational leader. Transformational leaders make effort to create relationships with their supporters through interaction that serves as a cultural connection between them. This contributes to a shift in both parties' values toward a common ground. By realizing expectations and showing dedication to objectives and common vision, the leader generates crystal-clear vision of the future in their supporters. This dimension is evaluated by the capacity of the leaders to achieve, trust in their values and vision.

c. Individualized considerations

The leader offers steady responses and combines the requirements of people with the function of the organization. The leader demonstrates special and personal interest in the growth and accomplishment of supporters (Avolio & Bass, 2002). A leader functions as a referee and supervisor for this purpose, helping to create the skills necessary for followers towards elevated potentialities. In terms of their demands and wishes, a leader must consider individual differences between and among supporters. By efficient interaction with them, he or she performs a double role (Avolio & Bass, 2002; Bass, 1998). By delegating duties and secretly observing them being enforced, a leader can improve supporters' skills that guarantee the quantity of assistance and oversight required. Above all the beneficial impact of individualized evaluation and transformative behaviours is the empowerment of supporters (Behling & McFillen, 1996). This can be measured by the leader's interest in the followers' needs for

development and growth, and being careful in training and guiding followers (Bass, 1994).

d. Intellectual stimulation (Creative)

Transformational leadership stimulates individuals to be able to be creative and excel by introducing ideas and timely solutions to problems (Avolio & Bass, 2002). However, it highlights and re-evaluates old beliefs and values and considers difficulties as issues that need to be resolved and seeks logical solutions to these problems. Transformational leadership does not publicly criticize followers for their errors. Rather, the leader gives them challenging tasks and encourages them to solve problems in their own way.

2.1.2 Transactional leadership theory

Routed in Weber's ideas, transactional leadership was developed by Burns in 1978 and advanced by him in the early 1980s. According to Yukl (2010) the individual leader is central and the organizational results key but short term. Transactional leader functions in organizations with people but tend to be more focused on the task than relationships. The leader sets performance criteria for followers which are often based on pre-determined deliverables. The followers' ability to reach agreed targets is characterized by performance reviews and a leader-follower exchange where sanctions and rewards are applied in order to promote follower performance (Kabeyi, 2018).

Cilliers et al. (2008) also regard transactional leadership as a mechanism of social exchange by agreeing and clarifying duties between the leader and the follower on the grounds that a properly finished job will result in penalty being rewarded and avoided. According to Adler and Reid (2008), the leader-follower relationship is viewed by a

transactional leader as a give and take contract where both sides agree to a mutual trade-off. A transactional connection between leader and follower is regulated by contractual rather than trust agreements. Shokane, Slabbert and Stanz (2004) contend that transactional leadership involves managing the behaviours and organizational resources of staff to achieve short-term goals.

Therefore, the transactional leader can be regarded as a manager focusing on day-to-day administrative tasks, adopting a conservative strategy to job, so that instant outcomes can be achieved. The leader can also be seen as an individual marginally concerned with empowering supporters to participate in personal development in order to go beyond their self-interest. The transactional leader is therefore perceived as a more challenge than a relationship-oriented individual, who relies on the need for authority to participate in positive operations with supporters (Andreassen et al., 2011). Its relevance in educational setting is reflected in the emphasis placed on structure and management of the process for achieving school goals. Educational institutions are organized based on rules, regulations and frameworks. And as teachers, students and other administrators are required to follow the regulations (Thakur, 2014).

2.1.2.1 Dimensions of transactional leadership

There are two dimensions of transactional leadership and they are:

a. Constructive transaction

According to Emery and Barker (2007), a key characteristic of transactional leadership is the link between employee requirements and what the leader wants to achieve as well as to provide benefits required by supporters. The exchange arrangement between leader and follower is positive, where followers are confident

and convinced that when tasks are finished effectively, they will receive benefits. This claim is properly endorsed by Oldham and Hackman's (2010) job characteristics model, where feedback from the job, knowledge of the real outcomes of work operations, outcomes in followers' fulfilment are considered key in constructive transaction. Furthermore, the need for accomplishment will lead to the incentive to strive for outstanding outcomes in pursuit of accepted objectives.

By contrast, failure to attain accepted objectives may lead to a sense of incompetence or failure thereby demotivating adherents to pursue such actions. Failed efforts can also give followers a perception that objectives are far-reaching or unattainable. Followers may also be demotivated when they perceive inequity in their reward structures where attempts are inconsistent with incentives, as described in Adam's (2001) equity theory.

b. Passive management by exception

The leader's passive style is a main transactional leadership dimension. Under this style, the leader intervenes only when issues become apparent. Therefore, followers may encounter some satisfaction in their autonomy requirements, which is backed by Oldham and Hackman (2010) work traits model. Furthermore, the fear of failure would be integrated in followers' minds because of the leader's reactive approach that involves intervening only when performance does not fulfil expectations, often responding with adverse effects. Results of research carried out by Emery and Barker (2007) show that there is an exceptionally adverse correlation between employee performance and leadership. According to Madlock (2008), prevalent factors leading to work discontent are mainly influenced by leader-follower interpersonal relationships. When followers view the leader as less supportive and absent when

necessary, particularly during the original phases of issue detection, there can be work discontent. In a school setting, the headteacher may try to give autonomy to followers such as teachers as much as possible in managing their classes and intervene only when there are issues that the teacher may not be able to handle.

2.1.3 Servant leadership theory

Servant leadership theory emphasizes that the leader leads by doing. It is a philosophy and set of methods known to enrich people's life, build better organizations, and eventually create a world that is more just and caring (Emery & Baker, 2007). Created by Robert K. Greenleaf in the 1970s Greenleaf (1997) espoused that even organizations could also be servant leaders, not just only people. Wong and Page (2003) maintained that servant-leadership in itself suggests completeness. To make a clear distinction regarding the value that such style brings to organizational improvement, Arlene Hall (1991) noted that "doing menial tasks does not necessarily imply a servant leader". Instead, a servant leader is one who invests in allowing, enabling and empowering others, assisting them to be and to do their utmost best. Servant leadership style is strongly linked in terms of the connection between the leader and the servant to transformational and transactional styles. The purpose of the Servant leadership theory is for the heads to enrich people's life thus the life's of the students by providing adequate sanitation recourses to help students to access education adequately.

2.1.3.1 Dimensions of servant leadership

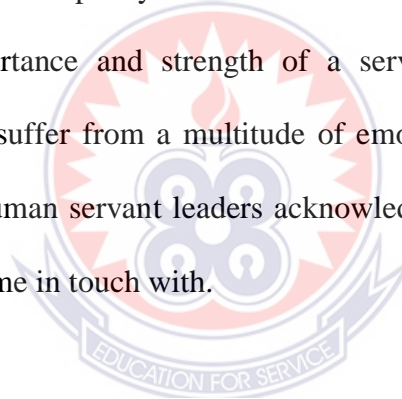
There are six dimensions of servant leadership as explained thus:

a. Empathy

The leader of the servant seeks to comprehend and empathize with others. For their special and distinctive spirits, people need to be accepted and acknowledged. One assumes co-workers and colleagues' excellent intentions and does not dismiss them as individuals, even when one may be compelled to refuse to acknowledge certain behaviours or results. Those who have become competent are the most effective servant leaders' empathetic listeners (Yukl et al., 2010).

b. Healing

Under servant leadership relationship, healing is considered a strong transformative and integrative force. The capacity to heal one's self and one's connection with others is one of great importance and strength of a servant leader. Many individuals particularly followers suffer from a multitude of emotional hurts and broken spirits even though part of human servant leaders acknowledges that they have a chance to assist all those they come in touch with.



c. Service

Servant leadership starts with the natural sensation of serving first and then a deliberate decision leads to an aspiration to lead. Servant leadership is the only type of leadership to be the first to place priority to service. Because a servant leader serves first, the characteristics of a servant as primary characteristics of servant leadership were designated. In other words, servant leaders must first meet the criteria of a servant before they can meet the criteria of a servant leader, which is consistent with the view of Greenleaf (1997) cited in Andreassen (2011) and also Sendjaya and Sarros (2002) who stress that one must place service before leadership. Greenleaf (1997) wrote that a servant leader is to serve first and then by "conscious choice" (p.

13) aspire to lead. The motivational element of servant leadership portrays a fundamental presupposition which distinguishes the concept from other leadership thoughts. This presupposition forms the mental model of the servant leader, which is the “I serve” as opposed to “I lead” mentality. The primary reason why leaders exist is to serve first, not to lead first (Sendjaya & Sarros, 2002).

d. Empowerment

Since servant leaders focus on building leadership potential in followers (employees) and (expanding) empowering their followers into more capable members of the organization, high quality LMX relationships can be developed in working groups (Greenleaf, 1977, Liden, 2008). In addition, several intermediate processes such as mutual trust between leader and follower and commitment to the supervisor were identified in a servant leadership model by Liden et al. (2014). Others have called empowerment the most important characteristic of servant leadership (Patterson, 2003). Greenleaf (add date) was even called the father of the movement for empowerment. There can be no servant leadership without power sharing. Patterson (2003) stated that “empowering people, with the best interest of those served in mind, is at the heart of servant leadership” (p. 23). Servant leadership empowerment involves effective listening, making people feel meaningful, focusing on teamwork, valuing love and equality, entrusting workers with authority and responsibility, and allowing them to experiment and be creative without fear (Russell, 2000; Russell & Stone, 2002).

e. Persuasion

Another characteristic of servant leader is to rely on persuasion in making decisions within an organization rather than on one's positional authority. Instead of coercing

compliance, the servant leader seeks to convince others. This particular element provides one of the clearest differences between the traditional authoritarian model and servant leadership model. The leader of the servant is effective in building consensus among groups.

f. Conceptualization

Servant leaders seek to nurture their dream-great dreaming abilities (Greenleaf, 1997). The ability to look at a problem or organization from a conceptualizing perspective means one has to think beyond the realities of everyday life. For many leaders, this is a characteristic that requires discipline and practice. The traditional leader is consumed by the need to achieve short-term operational goals. The leader who also wants to be a servant leader must extend his or her thinking to include conceptual thinking on a broader basis. Conceptualization is, by its very nature, a key role for trustee boards or directors within organizations. Unfortunately, boards can sometimes become involved in the day-to-day operations something that should be discouraged and, thus, fail to provide the visionary concept for an institution. Trustees mostly need to be conceptual in their orientation, staff needs to be operational in their perspective, and the most effective executive leaders are likely to need to develop both inside themselves. Servant leaders are called upon to seek a delicate balance between conceptual thinking and a daily approach to operation.

When servant leadership theory is integrated into the school system, the impact will be that teachers and students will be provided with a loving and caring environment for teaching and learning and this will in turn increase students' academic achievement.

Conceptual framework

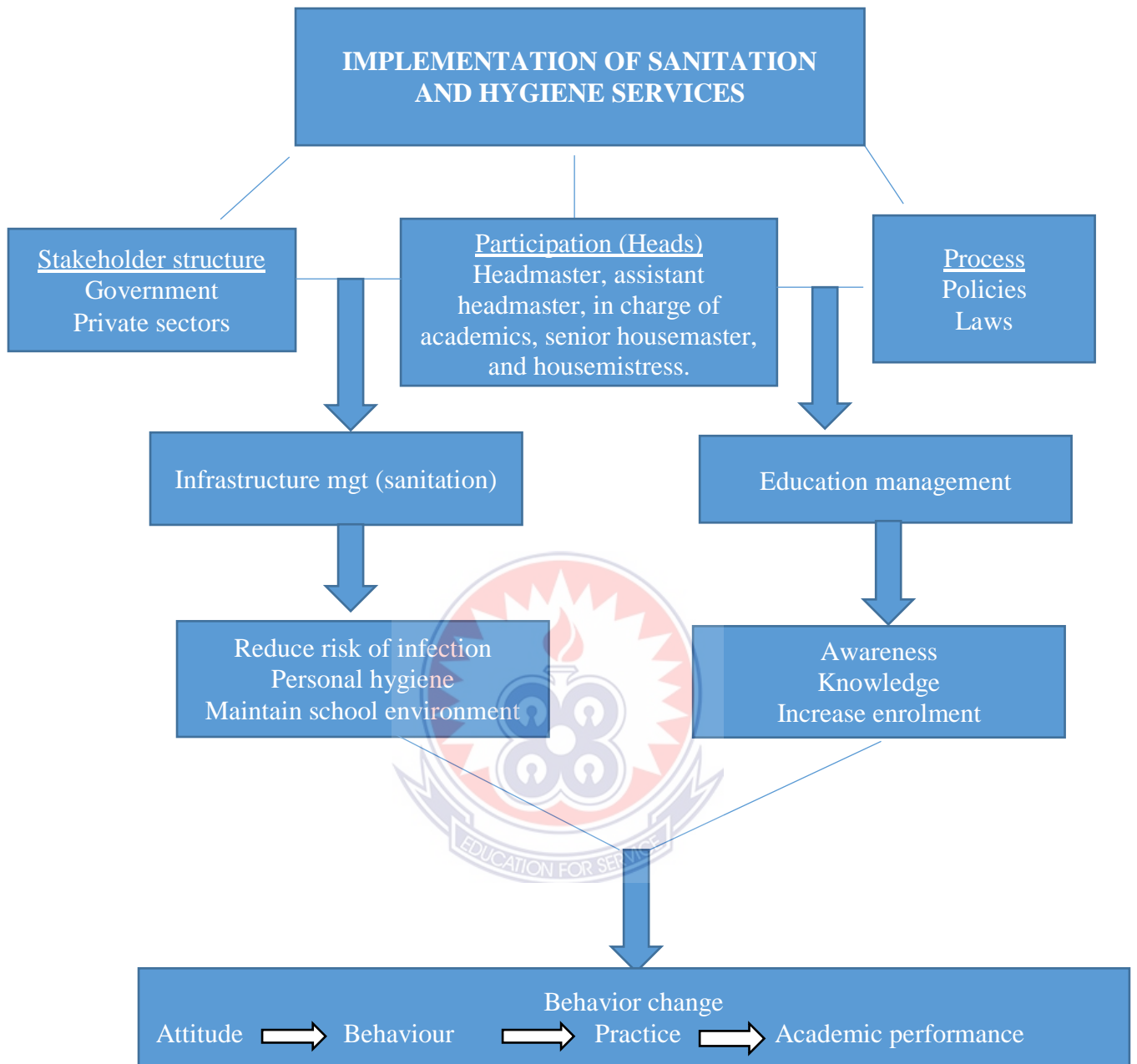


Figure 2.1: Conceptual framework

Source: Authors' own construct, May 2021

The framework shows that implementation of sanitation and hygiene services entails the participation of two main structures, government and private (non-government)

actors, using policies, laws and institutions to influence the implementation of sanitation services through provision of infrastructure, education and regulation.

That is, while it is acknowledged that several change agents thus, Headmaster, assistant headmaster, in charge of academics, senior housemaster, and housemistress are involved in implementation of sanitation and hygiene services.

Apart from the stakeholder dimension, the framework shows that implementation of sanitation and hygiene services can be approached using two main strategies namely; management of infrastructure as well as education management. Regarding infrastructure management, the variables to be considered is to Reduce risk of infection Personal hygiene Maintain school environment. Regarding Education management the variables to be considered Awareness, Knowledge increase enrolment. Infrastructure provision programmes must also be scalable so as to reach all students. The underlying assumptions is that, proper management of sanitation infrastructure would make the preferred sanitation facilities available, accessible and affordable to the intended users. The practical implication of considering user preferences, for instance, is that it helps to increase uptake. Interestingly, all these can be achieved through effective participatory planning and implementation processes, which are underpinned by the systems, participation and behaviour change theories. Furthermore, as the framework depicts, there is a feedback mechanism from the outcomes to the structures and processes to allow for monitoring and evaluation for corrective actions or remedial measures where necessary and needful.

2.2 School headship

A headteacher is charged with the direct supervision of both academic and extra-curricular activities of a school in Ghana. The duties of head teachers are presented along themes such as visioning, instructional, administrative and relational. The role expected of a school head varies depending on the context and education system. Jull, Swaffield and Macbeath (2014) maintain that a head teacher's professional development and leadership practices in Sub-Saharan Africa have experienced less variation from the model established during colonial times. The Headteacher is the chief executive of the school. The Headteacher has the mandate and responsibility for playing multiple roles. Depending on the education system, the Head teachers' responsibilities may cover the entire school or specific departments. School heads are seen as supervisors, managers, school climate developers and change facilitators (MolokoMphale & Mhlauli, 2014; Esia-Donkor, 2014).

In specific terms, Head teachers' duties reflect key themes such as instructional, administrative visioning, collaborative, and relationship building. Vision is crucial to the Head teacher's role. The cardinal role of driving vision for school development is to set a clear and focused goal which is pursued as the mission of the school. This role therefore includes target setting and general planning. The failure to plan properly deprives schools of desired results. Success in school improvement is therefore incumbent on how the school head visions and blends relationships with values (Kieti, Maithya & Mulwa, 2017).

Nyagosia (2011), Helterbran and Sue (2004) also stress the influence of instructional leadership in promoting effective schools. They argue that among the most important characteristics of effective schools is the existence of strong instructional leadership

whose core business is promoting actual teaching and learning. The instructional leadership is wide in scope but emphasizes the head teachers' routine duties around identifying opportunities for improving classroom learning, planning and conducting professional development training for teachers. Embedded in this sub role are planning and managing the school curriculum, allocating resources meant for teaching and learning, supervising and reviewing day to day teaching and learning (MolokoMphale, 2014).

Regular monitoring of learners' progress and delivery of teachers are other instructional tasks school heads carry out. The rest are mentoring of teachers and learners in some contexts (Vaillant, 2015). These instructional practices are similar to what is done in Ghana's basic schools. The gap is that they are silent on the level and limits of the head teachers' supervisory duties. In Ghana, the junior high school head has the first level responsibility for supervising the school but significant responsibility is entrusted in Circuit Supervisors. Administratively the Head teachers' duties extend from managing correspondence between the school and the external community to an interface between and among teachers, students and School Management Committee members. The Headteacher does not only build relationship but promotes effective communication and collaboration in order to ensure achievement of agreed plans.

Ensuring that school records are effectively kept and easy to retrieve, making timely student records to parents and other district education managers are key administrative tasks undertaken by the Headteacher. Discipline of both teachers and students represents core administrative role of school heads likewise promotion of safe and conducive environment. Heads of lower secondary schools are also expected

to build positive home-school relations. This includes ensuring that parents remain aware and involved in school-based matters that affect their children (Nyagosia, Waweru & Njuguna, 2013). As a leader of such a public organization where people are the key ingredients, misunderstandings are inevitable. The head therefore is expected to resolve conflict by mediating between and among stakeholders within the school environment. As long as conflicts occur in a school setting, the role of the head in resolving them is crucial (Kor & Opare, 2017).

2.3 Qualities of a good head teacher

To be a successful school head, the individual must possess and proactively exhibit some qualities. Ndyali (2013) reiterates that a very positive personality that has a high level of energy, enthusiasm, organization and willing to take initiative while being positive at all times are key qualities. Other qualities are being analytical, possessing a high sense of humour in order to broker and succeed in even the most tensed situations, tolerance and a good listener. Ndyali did not stress confidence as a key quality of a good headteacher. In an interview with a cross section of best head teachers from the United Kingdom, Sutcliff (2013) found that vision, courage, passion, emotional intelligence, judgment, resilience, precaution and curiosity are key qualities every good headteacher must exhibit.

Day and Sammons (2016) maintain that the dimensions of qualities of a good headteacher anchor on the actions they take and their outcome. As a consequence, good head teachers should have a blend of facilitation skills, creativity and the ability to influence. One should therefore be able to identify a good headteacher based on their ability to define a clear vision, uphold the values of the school, enhance teaching and learning, demonstrate and lead good relationship, both internally and externally.

2.4 Overview of sanitation

As with several concepts, there is no one universally accepted definition of sanitation. Many authors define sanitation differently based on certain criteria. Sanitation refers to a process whereby people demand, effect, and sustain a hygienic and healthy environment for themselves by erecting barriers to prevent the transmission of disease agents (UNICEF, 1997). Moreover, a fairly recent definition of sanitation has been given by Ekane et al. (2016). Ekane et al. (2016, p. 5) have define sanitation as “the provision of services and facilities for the collection, handling, treatment, disposal and/or use of mainly human excreta, and the related hygiene and health behavioural aspects”. Universal access to adequate sanitation is a fundamental need, human right and a key development intervention. This is because having access to sanitation improves health, well-being, economic productivity and also lay foundation for sustainable development (WHO, 2004).

Ekane et al. (2014) have given an apt description of sanitation and its challenges.

They explain that:

Sanitation in general remains a taboo subject. This is undoubtedly linked to institutional inertia or institutional persistence. Genschel (1995) presents three reasons for institutional inertia. Firstly, uncertainty – any changeover from an old to a new institution involves an element of uncertainty and risk. Secondly, sunk cost– the need to learn rules, codes, and conventions as well as to develop particular skills, competencies, and tools. These take time, money and effort to build. Thirdly, political conflict – the potential for partiality makes a switch to new institutions prone to conflict (Ekane et al., 2014, p. 249).

The assertion of Genschel (1995) about the barriers to institutional inertia or persistence is far from wrong. The three reasons given can explain why some countries in Sub-Saharan Africa still have a long way to go in achieving SDG Goal 6 which is ensuring access to water and sanitation for all. Ekane et al. (2014) explain that some of the formal and informal institution regarding sanitation and hygiene. The

formal ones include policies, guidelines and statements. These are formulated at the macro or national level. On the other hand, the informal institutions include customs and norms. These are also implemented at the micro level. It is therefore not surprising that sometimes they can be a conflict between the formal institutions and the informal institutions. This contradiction between the two explains why sanitary requirement or minimum hygiene standards are not achieved. A discussion of the various factors that impede the implementation of sanitation and hygiene policies is discussed in section 2.7.

An improved sanitation facility, according to the WHO/UNICEF Joint Monitoring Programme, is “one that hygienically separates human excreta from human contact” (Ekane et al., 2016, p. 5). This explanation is generally considered as a proxy to safe sanitation. In other words, safe sanitation is ensuring that humans do not contact human excreta. According to Bartram and Cairncross (2010), poor hygiene habits combined with a lack of adequate sanitation facilities have detrimental effects on both human and environmental health.

Ekane et al. (2014) have indicated that “a decent and functional toilet facility remains inaccessible for the majority of people in SSA, making aspects of cleanliness, comfort, and convenience lacking. Safety aspects are further compromised since there is little or no supervision of toilet structures constructed by households themselves.” This situation is indeed a dire one. As indicated earlier on sanitation involves hygienically separating human contact from human excreta. Unfortunately, the pits that some households resort to do not ensure the containment of human excreta. This implies that some human excrement can interact with people. The situation where dysfunctional sanitation systems are ubiquitous poses a challenge to human health and

life (Ekane et al., 2014). This is because pathogens in human excreta have the ability to cause diseases like diarrhoea and cholera. An outbreak of such diseases is possible. Thus, there is a correlation between dysfunctional sanitation systems and health risks. With regard to dysfunctional sanitation systems there is some uncertainty about the actual disease transmission route.

However, what is certain is that safe sanitation leads to human and environmental health (Ekane et al., 2014). The type of toilet systems adopted is critical. Ekane et al. (2014) have asserted that there are two dominant toilet systems in Sub-Saharan Africa. These are the pit toilets (also known as ‘drop and store’) and the flush toilet (also known as ‘flush and discharge’). The pit system provides that chance for humans to come into contact with human excreta. It is in this light that Geyer et al. (2011) assert that these type of toilet systems are not in safe hygienic conditions. However, it is not the flush toilets (generally more hygienic) that are increasing at a faster rate. It is rather the traditional or pit toilets.

According to Ekane et al. (2014), the traditional or pit toilet expansion is “more than twice the rate of expansion of flush toilets and improved toilets put together”. Although great progress was made in achieving the United Nation’s Millennium Development Goal (MDG) to provide access to sanitation, achieving real gains in sanitation coverage has been slow (WHO/UNICEF JMP, 2015; Ekane et al., 2016). Most of the countries in Sub-Saharan Africa were not able to achieve the sanitation target of the MDG goal 7 which was “to halve the proportion of people without sustainable access to basic sanitation facilities by 2015” (Ekane et al., 2016).

As of 2017, 55% of people worldwide lacked access to sanitation. Specifically, 946 million people still open defecate (9 out of 10 live in rural areas), 2.3 billion people

lack access to improved sanitation (7 out of 10 in rural areas), 663 million lack access to basic water sources, and diarrhoea is the second leading cause of death in children under five much of which is preventable by clean water and sanitation (WHO/UNICEF, 2017). The sanitation situation in Africa is even more worrying as only 28% of the people in sub-Saharan Africa have access to basic sanitation (WHO/UNICEF 2017). Although Ghana made steadily progress on achieving the millennium Development Goal for water supply, it is still lagging behind in sanitation (Ghana Education Service, 2014). Whereas national access to safe drinking water in Ghana is at 86%, safe sanitation coverage is only 8% (UNICEF/WHO, 2012).

Poor sanitation and hygiene have varied health, and economic consequences which impact individuals, households, communities and countries. The health implications of unsanitary conditions lead to diseases such as diarrhoea, cholera, dysentery, ear, nose and throat infections and malaria. In low- and middle-income countries, an estimated 842, 000 people die annually from diarrhoea and other causes associated with inadequate water, sanitation and hygiene. Children under five years bear the greatest burden (WHO 2018). In all sub-Saharan African countries diarrhoeal diseases have been listed as one of four leading causes of early death and in Ghana, diarrhoeal diseases cause about 25% of deaths among children under five years annually (Wang et al., 2016; Binka et al., 2011). Research has shown that the burden of disease from diarrhoea diseases and infection can be moderated by reducing exposure to faecal pathogens, particularly by improving access to sufficient and safe water supply, use of sanitation facilities, and proper hygiene behaviours (Hotez et al., 2006).

In addition to the health risks, poor sanitation has financial and economic impacts on a country. The WSP (2012) reported that the annual economic loss to Ghana due to poor sanitation was US\$290 million, equivalent to 1.6% of GDP. The current situation in Africa is even more disturbing as only 28% of the people in sub-Saharan Africa have access to basic sanitation (WHO/UNICEF, 2017).

School sanitation and hygiene education (SSHE) is a fundamental component of the Total Sanitation Campaign, which includes provision of toilet infrastructure and hand washing facilities in schools and hygiene education, to promote behavioural change among children (Snell, Gangully & Shordt, 2002).

Generally, availability and access to sanitation and hygiene services in schools may reduce disease burden, and improve menstrual hygiene, reduce the number of days missed in schools particularly for girls, provide more time for learning tasks. These consequently promote high-quality education, children's cognitive performance and improve their health literacy and health. Improving school sanitation and hygiene is also an opportunity to improve equitable access among populations traditionally missed by other service delivery improvements at the community-level. Proper sanitation and hygiene services have a higher likelihood to improve the health status and wellbeing of the population of a country at large. This ultimately contributes towards economic productivity and national development (Freeman et al., 2012; WHO, 2019).

2.5 The importance of school Sanitation and Hygiene Education (SSHE) in school

Del Rosso and Marek (1996) comment that healthy children are more likely to attend school regularly and they are also more likely to perform better in their academic work. They explain that children who are taught in schools to acquire essential health related knowledge and skills are not only less likely to engage in health-compromising behaviour as adolescents, but more likely to carry the knowledge and skills into adulthood and lead healthy lifestyles.

According to WHO (2009), children pass on health-related knowledge and skills acquired from schools to parents and other members of the household. Thus, school - based health education programmes benefit not only students but family members and the community at large. A school student who has been taught the value of cleanliness and good hygiene practices is a conduit for spreading those messages far outside of the school, improving long-term not only his or her own health and wellbeing but also that of the family and the larger community. Investing in school sanitation and hygiene education and the importance of School Health and Hygiene Education therefore cannot be over- emphasized.

Sanitation and hygiene are therefore fundamental to good health and dignity, and improving sanitation and hygiene practices should not be underestimated. SSHE is an integral package of school health education systems on water, sanitation and hygiene and needs to be recognised and endorsed by all stakeholders. Likewise, a joint strategy session at the World Education Forum held in Dakar in 2000 made a strong case that provision of effective school health services is an important strategy for achieving Education for All. Provision of school health services not only responds to a need, but also increases the efficacy of other investments in child development,

ensures better educational outcomes, achieves greater social equity and is a highly cost effective strategy (Integrated School Health Policy, 2012).

Globally, about 1.1 billion people are currently without access to improved water supply and about 2.4 billion do not benefit from any form of improved sanitation service (WHO, 2000). Majority of these people live in Asia and Africa. In a study conducted by W.H.O in Africa, it came to light that two out of five people lack improved water supply. Burgers (2000), opines that the main component of sanitation and hygiene is the provision of safe water and sanitation facilities in schools. To him, this is the first step towards a healthy physical learning environment, benefiting both learning and health. However, Burges is of the view that, the mere provision of these facilities does not necessarily make them sustainable or produce the desired impact. It is the use of toilet facilities and its related appropriate hygiene behaviour of people that provides health benefits. In schools, hygiene education aims to promote these practices that will help; to prevent water and sanitation-related diseases as well as encouraging healthy behaviour in the future generation of adults. The success of a school hygiene programme is therefore not determined only by the number of toilet facilities constructed and the number of hand pumps installed or water connections built but by what learners know about sanitation and hygiene practices and how they put this knowledge into practice (WHO, 1999).

In the view of the World Health Organisation (WHO) (2000), sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces; and inadequate provision of these facilities is a major cause of diseases worldwide. It has been realized that improving sanitation is known to have a significant impact on health both in households and across communities

(WHO 2000). The word sanitation also refers to the maintenance of hygiene conditions, through services such as garbage collection and waste water disposal. UNICEF and IRC (1988) as well as Coppens (2005) consider School Sanitation and Hygiene Education (SSHE) as the combination of hardware and software components that are necessary to produce a healthy school environment to develop or support safe hygiene behaviour. They are of the view that hardware components include supply of drinking water and facilities for hand washing and safe disposal of excreta and solid waste in and around the school compound. The software components are the activities that promote conditions at schools and practices of school staff and children that help to prevent water and sanitation related diseases and parasites.

Snel (2004) and Water Aid Uganda (2013) indicate that health influences learning and education influences health. This is because poor sanitation causes diarrhoea, which kills 1.5 million children each year. However, smart investments in sanitation can reduce disease, increase family incomes, keep girls and boys in school, help preserve the environment, and enhance human dignity. Increasing evidence also shows that school sanitation and hygiene education programmes offer high cost benefit (DANIDA, 2007). Unfortunately, the promises of school health and hygiene education programmes have not always been fulfilled by either the government or stakeholders in education especially in the rural communities. Many school environments in most rural communities are not safe for children due to neglect of the operation and maintenance of health facilities. It is believed that there has been a lack of hygiene education for the students. These schools often suffer from non-existent or insufficient water supply, sanitation and hand washing facilities, dirty and unsafe water supply; toilets or

latrines that are not adapted to the needs of children particularly girls; nonexistence and hygiene education, unhealthy and dirty classrooms and school compounds among others. WHO (2000) estimates that 88% of diarrhoea disease is caused by unsafe water supply and inadequate sanitation and hygiene.

Many schools serve communities that have a high prevalence of diseases related to inadequate water supply, sanitation and hygiene, and where child malnutrition and other underlying health problems are common. Under these conditions, schools become unsafe places where diseases are transmitted (WHO, 1997). Thus, children's ability to learn may be affected by inadequate water, sanitation and hygiene conditions (Cairncross & Valdmanis, 2006). This can contribute to poor health which can affect children's ability to learn and may therefore influence their educational achievements and prospects in life (Clarke & King, 2004; Faheem & Yasir, 2007; ICF Macro 2010). A study by Nokes and Bundy (1992) for example, shows that children with worm infestations have lower marks in school than non-infected children. Basically this means that children with heavy worm infestations begin at a disadvantage and have a slower start in the learning process; these children have only a few years of opportunity to benefit from a formal education. Issues of sanitation and hygiene are of critical concern to every nation as a whole and to schools as far as education are concerned. Visits made by researchers to some public schools in Sefwi Akontombra district in Western Region in Ghana revealed the lack of proper health and hygiene facilities.

This situation and its inherent poor hygiene practices which are not different from what pertains in some rural schools in many developing nations, makes the school environment no longer a safe place for school children (WHO, 2009). History

of School Health Education Programme (SHEP) in Ghana in 1992 the Government of Ghana directed the Ministries of Education and Health to introduce the School Health Education Programme (SHEP) in basic schools to complement and supplement the academic component of formal education and child survival. This is a similar programme to what the World Health Organization (WHO) defines as school health programme which is seen as a combination of services ensuring the physical, mental and social well-being of learners so as to maximize their learning capabilities.

SHEP also seeks to equip school children with the necessary health skills that will enable them take control of their own wellbeing, have maximum student-teacher contact hours and use available human and material resources to ensure improved health status of school children. This programme also advances the wellbeing of learners, by positively influencing their health, knowledge, attitudes, beliefs and values. In addition, SHEP aims at ensuring the provision of comprehensive health and nutrition education and its related support services in schools. It is also to equip children with basic life skills for healthy living, which will lead to improvements in child survival and educational outcomes, including school enrolment, retention and academic performance. SHEP is also envisioned to create well informed health conscious school populations who have full potentials to act as change agents in their homes and communities and to contribute effectively and efficiently to national development (WHO, 2009)

The Importance of School Sanitation and Hygiene Education (SSHE) in school, Del Rosso and Marek (1996) comment that healthy children are more likely to attend school regularly and they are also more likely to perform better in their academic

work. They explain that children who are taught in schools to acquire essential health related knowledge and skills are not only less likely to engage in health-compromising behaviour as adolescents, but more likely to carry the knowledge and skills into adulthood and lead healthy lifestyles.

According to WHO (2009), children pass on health-related knowledge and skills acquired from schools to parents and other members of the household. Thus, school - based health education programmes benefit not only students but family members and the community at large. According to Snel IRC (2003), a school student who has been taught the value of sanitation and good hygiene is a conduit for spreading those messages far outside of the school's walls, improving not only his or her own health and wellbeing but also the health and wellbeing of the family and the larger community. Therefore, it is crucial to invest in school sanitation and hygiene education and to emphasize the significance of school health and hygiene education.

Sanitation and hygiene are therefore fundamental to good health and dignity, and improving sanitation and hygiene practices should not be underestimated. SSHE is an integral package of school health education systems on water, sanitation and hygiene and needs to be recognised and endorsed by all stakeholders. Likewise, a joint strategy session at the World Education Forum held in Dakar in 2000 made a strong case that provision of effective school health services is an important strategy for achieving Education for All. Provision of school health services not only responds to a need, but also increases the efficacy of other investments in child development, ensures better educational outcomes, achieves greater social equity and is a highly cost effective strategy (Integrated School Health Policy, 2012).

Around 1.1 billion people worldwide do not currently have access to an improved water supply, and approximately 2.4 billion do not receive any type of improved sanitation service (WHO, 2000). Majority of these people live in Asia and Africa. In a study conducted by W.H.O in Africa, it came to light that two out of five people lack improved water supply. Burgers (2000), opines that the main component of sanitation and hygiene is the provision of safe water and sanitation facilities in schools. To him, this is the first step towards a healthy physical learning environment, benefiting both learning and health. However Burges is of the view that, the mere provision of these facilities does not necessarily make them sustainable or produce the desired impact. It is the use of toilet facilities and its related appropriate hygiene behaviour of people that provides health benefits. In schools, hygiene education aims to promote these practices that will help; to prevent water and sanitation-related diseases as well as encouraging healthy behaviour in the future generation of adults. The success of a school hygiene programme is therefore not determined only by the number of toilet facilities constructed and the number of hand pumps installed or water connections built but by what learners know about sanitation and hygiene practices and how they put this knowledge into practice (WHO, 1999).

2.6 Sanitation and hygienic conditions in schools

Certainly! According to the World Health Organization (WHO), adequate sanitation and hygiene services such as improved toilet facilities, hand washing facilities in schools, and health education leads to a healthy school environment and thus can enrich opportunities for personal growth among students. It also helps create conducive learning environments and is a means of disease prevention and promotes health and well-being. In addition, having access to safe, hygienic bathrooms can help

children be less likely to miss school due to illness or embarrassment. A Chinese study covering a period of 5 months showed a lower likelihood for children who had been taught about hand washing with soap to miss school compared to those who had not had such lessons (Bowen et al., 2007).

Manassara and Tohon's study (2013) in Niger which assessed the health impact of the construction of latrines, clean water supply, establishment of hand washing stations and health education reported a significantly decrease in cases of diarrhoea and abdominal pains among school children. The authors concluded that availability and access of health infrastructure in schools had an impact on hygiene-related habits in the beneficiary schools and communities.

In Kenya, a school-based safe water and hygiene intervention study was carried out by O'reilly et al. (2007) to assess its impact on students' knowledge and parents' adoption of safe water and hygiene practices. Findings from the study indicate an improvement of students' knowledge of correct water treatment procedure and knowing when to wash their hands. Also, at the final evaluation 14% of parents (n=363) reported currently treating their water, compared with 6% at baseline. During the period of the intervention (2004 to 2005 September-November term) school absenteeism decreased in nine project schools by 35% and increased in control schools by 5%. The authors concluded that implementation of water and a hygiene intervention in schools has the potential of reducing school absenteeism and could facilitate improved learning.

However, poor environmental conditions in schools can increase the incidence of diseases such as diarrhoea, malaria, among others. Moreover, the absence of separate private and secure toilets and washing facilities in schools may discourage parents

from sending their girl child to school. Lack of adequate facilities for menstrual hygiene can also contribute to girls missing days at school and consequently compel girls to drop out of school (WHO, 2009; Adukai, 2016). The effect of girls' menstrual management in low-income countries is often mentioned in discussions on how to improve development outcomes for girls and women (IRC, 2007). I found a reference that might be what you're looking for. According to IRC International Water and Sanitation Centre, in 2007 they published a manual on scaling up programs for water, sanitation and hygiene in schools.

Importantly, it is also difficult to attract and retain teachers in schools that do not have adequate sanitation and hygiene facilities (Pearson & McPhedran, 2008; Adukai, 2016). The absence of adequate sanitation and hygiene services can also increase absenteeism among teachers. All these challenges can make both teaching and learning very difficult. Lack of access of sanitation and hygiene services at school may also lead to increased transmission of diseases within the community (Pearson & McPhedran, 2008). Notwithstanding the varied benefits of access to adequate sanitation and hygiene services in school, many schools worldwide, particularly, in developing countries have inadequate access to water, sanitation and hygiene services.

Good sanitation and hygienic practices in schools can help educational systems achieve their own goals. This can be done by improving upon sanitation facilities, as well as health education, to enrich the opportunities for personal growth among children especially the girl by bringing life education into the classroom. This will lead to a healthy school environment.

In the case of UNICEF (2003) the provision of sanitary facilities like improved toilet facilities and hygiene, improves health status of students/students and also encourages

girls to attend school. Accordingly, the School Sanitation and Hygiene Education (SSHE) campaign, a joint project of UNICEF and the IRC International Water and Sanitation Centre, the Water Supply and Sanitation Collaborative Council (UNICEF/IRC/WSSCC, 2000) and others, aims to provide water and sanitary facilities in schools to improve health of all students and encourage girls to attend school. Research and surveys suggest that separate facilities need to be provided for girls and boys, if girls are not to be discouraged from attending school.

When sanitation has improved the flow of human excreta into waterways will be reduced and this will help to protect human and environmental health Swedish Water House (SWH, 2007). On the whole in meeting Millennium development, the world is on track for the target for water due mainly to progress in China and India, but only two regions, namely East Asia and Latin America are on track for sanitation. On a similar note, current trends in Sub-Saharan Africa will reach the water target in 2040 and the sanitation target in 2076 and South Asia is 4 years off track for sanitation. Measured on a country-by-country basis, the water target will be missed by 234 million people, with 55 countries off track. The sanitation target will be missed by 430 million people, with 74 countries off track.

For Sub-Saharan Africa to get on track, connection rates for water will have to rise from 10 million a year in the past decade to 23 million a year in the next decade. South Asia's rate of sanitation provision will have to rise from 25 million people a year to 43 million a year (Watson, 2006). It is most important to note that if most of the countries are on track, then these targets and goals will be met. But unfortunately, some targets set are almost to the due dates and still have not been achieved fully Bangladesh also is the home of a new approach to increasing sanitation coverage,

which is popularly called Community-Led Total Sanitation (CLTS), first introduced in 2000 in a small village in the Rajshahi District by Dr. Kamal in cooperation with Water Aid Bangladesh and the Village Education Resource Centre (VERC).

Most traditional sanitation programs rely on the provision of subsidies, sanitation promotion, and hygiene education. The shortcomings of the established programs led to the development of the new CLTS approach in Bangladesh, shifting the focus to personal responsibility and low-cost solutions. CLTS aims to stop open defecation within a community rather than facilitating improved sanitation only to selected households. Awareness of local sanitation issues is raised through a walk to open defecation areas and water points (walk of shame) and a calculation of the amount of excreta caused by open defecation (Kamal, 2003).

Combined with hygiene education, the approach aims to make the entire community realize the severe health impacts of open defecation. Since individual carelessness may affect the entire community, pressure on each person becomes stronger to follow sanitation principles such as using sanitary toilets, washing hands, and practicing good hygiene. To introduce sanitation even in the poorest households, low-cost toilets are promoted, constructed with local materials. The purchase of the facility is not subsidized, so that every household must finance its own toilets. CLTS does not identify standards or designs for latrines, but encourages local creativeness. This leads to greater ownership, affordability and therefore sustainability (Kamal, 2003). The indication is that, CLTS can have a positive impact on their lives if everyone in the community adheres to the new approach to increasing sanitation promotion in the communities.

According to Biran et al. (2008), Schmidt et al. (2011) improved access to water facilitates hygiene. Good hygiene can prevent recontamination after collecting water from the source. Water access greatly facilitates use of sanitation. For example, use of pour-flush latrines clearly depends on the availability of water. Only if water is readily available will people use such latrines in the long-term. At the same time, inadequate sanitation may threaten the quality of nearby water sources. Inadequate sanitation increases fly numbers (Emerson et al., 2004) which can make maintaining good hygiene very difficult. Biran et al. (2008) Schmidt et al. (2011) further throws more light on the issue that, there is the need to have improved water facilities to help improve sanitation situations.

In the past years, UNICEF (2006) indicated that hand washing lead to significant reduction in the transmission of diarrhoea and acute respiratory diseases. A study in Karachi, Pakistan found that under-five children in households that received soap and hand washing promotion had 50% lower incidence of pneumonia than children in control areas (Luby et al., 2005). The soap industry has already succeeded in bringing laundry and bathing soap into 90% of households world-wide. But the problem seems to be non-use of soap by the populations for hand washing purposes.

In Ghana, diarrhoea is responsible for 18 % of under-five childhood deaths and lives of over 14, 000 children could be saved by simple preventive steps, washing hands with soap. Among environmental interventions, hand washing and point-of-use water treatment were shown to reduce diarrhoea. More efforts are needed to encourage households to take up these behaviour changes. At community level improvements in rural water infrastructure and adequate maintenance substantially reduces diarrhoea disease or that this infrastructure can be effectively maintained (Zwane & Kramer,

2007). Poor sanitation and hygiene weaken Africans through disease, disruption of the environment, exacerbate poverty through medical cost and lower productivity, and rob the poor and vulnerable of dignity. Two of the changes needed to achieve 'Health for All' are a Healthy Environment and Healthy Lifestyle.

Despite enormous achievements over the past two decades, an estimated one billion of the earth's citizens still lack safe drinking water while almost three billion do not have adequate sanitation. More than two million children die each year from sanitation-related diseases (Vision 21, 2000). Virtually every man, woman and child on the planet knows the importance of hygiene and enjoys safe and adequate water and sanitation. People work closely with local government and non-governmental organizations to manage water and sanitation systems so as to meet basic needs while protecting the environment. Everywhere in the world, people live in clean and healthy environments. Communities and governments benefit from the resulting improved health and the related economic development (Vision 21, 2000). Lack of good drinking water and hygiene education both at home and school can result in water related ailments such as cholera, diarrhoea, typhoid fever and worm infection resulting in children especially the girl staying away from school.

Diarrhoea one of the major contributors to global burden of diseases, costs between 272 and 443million lost school days each year alone. Less obvious is the burden Soil Transmitted Helminthes (STH) has on Education: 47% of children in the developing world between the ages of 5-9 are infected with STH – Hookworm, Roundworm and Whipworm. Over 150 million school children are severely ill due to worms. Children with worms can miss up to twice as many school days. WHO (2004) argues that STH are one of the world's most important causes of physical and intellectual growth

retardation (Lancet, 2006) contributes by indicating that lack of facilities and poor hygiene affects both boys and girls, but has a stronger negative impact on girls. Girls need to have access to safe, clean, and private sanitation facilities in schools, especially adolescent girl. Children, in particular girls, miss out time at school because they have to fetch water. When family members fall sick, girls are more likely to be kept at home to help. Most girls have first menstruation (menarche) at age 11-15. 56% of girls- both in and out of school – did not have any information about menstruation before onset of menarche (UNICEF, 2007).

If adolescent girls attend schools which lack adequate toilets and water supplies for girls to comfortably change sanitary pads and wash themselves in privacy, they may be unable to remain comfortably in class during their menstruation. About 15% of girls aged between 15 and 18 years, report to be absent due to cramping pains experienced during or before their monthly period (Rajasthan, 2006). A girl can miss up to 10-20% of her school days 3-4 days/month; 9- 12 days/term; 27 – 36 days per school year (Cooke, 2005). Poor menstruation hygiene leads to fungal infections in young girls. Repeated infections can lead to serious reproductive tract infections. This makes them vulnerable to infertility (Singh et al., 2001).

It is important to note that, girls are a vulnerable group at risk of suffering, particularly if water, sanitation and hygiene conditions are poor. At a young age, girls are biologically less susceptible to infectious diseases, including diarrhoea, than boys. However, in many low income settings poor households often seek less health care for girls than for boys. This has especially been found to be a problem in South Asian and Southeast Asian countries with a strong boy preference that can also be seen in the high rate of gender-specific abortions in these countries. For example, in India and

Bangladesh, two countries in which diarrhoea is a leading cause of death, child mortality in poor settings is often higher for girls than for boys. Differences in healthcare seeking behaviors have been shown to be responsible for much of this mortality gap between boys and girls (Clason et al., 2010, Mitra et al., 2000).

Girls and boys are likely to be affected in different ways by inadequate water, sanitation, and hygiene conditions in schools, and this will contribute to unequal learning opportunities. Sometimes, girls and female teachers are more affected than boys because the lack of sanitary facilities means that they cannot attend school during menstruation (WHO, 2004). The crucial time of the month for girls and women is usually during menstruation. This is a time when they need sanitary facilities to comfortably wash and change their sanitary pads. This way, learning will be interesting both at school.

However, in areas with food scarcity, it may also be that boys are allocated more food than girls and may therefore be less susceptible to water, hygiene, and sanitation related infections than girls, especially with regard to severe disease episodes (Koenig & D'Souza, 1986). Girls of school age, especially after puberty, are often faced with inadequate sanitation facilities at school, which poses problems during menstruation that frequently lead to school absence (Sidibe, 2007). It has been shown that improving school sanitation may help girls to stay in school (Sidibe, 2007). Girls are also more often than boys charged with carrying water in areas with inadequate water access. They would therefore benefit in particular from improvements in water supply. Access to safe water and sanitation facilities and better hygiene practice can reduce morbidity from ascariasis by 29% and hookworm by 4%.

Improvements in drinking-water quality through household water treatment can lead to a reduction in diarrhoea episodes by between 35% and 39%, while hygiene interventions can lead to a reduction of diarrhoea cases by up to 45% (WHO/UNICEF WSSCC, 2000). The only way to sustainably reduce this massive burden of disease is through the use of safe drinking water, sanitation and improved hygiene practices, in particular hand washing with soap. There is also emerging evidence linking better hand-washing practices with reduced incidence of acute respiratory infections (United Nations Economic and Social Council, 2006). From the above statement, it is well noted that inadequate sanitation facilities at school poses problems to girls like staying away from school and poor performance especially during menstruation. It is also clear that girls do suffer most in terms of poor hygiene conditions which most likely impairs learning and promotes low attendance to school.

School sanitation according to Adams et al. (2009) is a good example of potential non-health benefits of sanitation in low-income settings. School sanitation is unlikely to be associated with major adverse effects but, in addition to contributing to the control of diarrhoea, helminths, and trachoma, it encourages school attendance, especially of girls. The effect of girls' menstrual management in low-income countries is frequently cited in discussions on how to improve development outcomes for girls and women (IRC, 2007, 2009a, 2009b). A recent DFID-funded systematic review (Birdthistle et al., 2011) found that there is currently no evidence in the peer reviewed literature for, or against the hypothesis that well-maintained separate toilets for girls may increase school enrolment and attendance for girls – even after they reach menarche.

More research is needed in this area. There are a lack of studies investigating the impact of sanitation on the attendance and performance of girls in school and there is therefore a need for more research. Further, children being habituated to adequate sanitation in schools may later in life increase demand for sanitation in the community as a whole. School sanitation creates educational opportunities to promote safe environments at home and in the community. Healthy children in healthy environments learn more effectively. In light of this, the statement indicates that, there is actually no literature to show that the provision of separate sanitation facilities is a guarantee for girls to attend school regularly or promote the performance of girls. Girls may have their privacy protected once they will be provided with separate facilities.

O'Rrilly et al. (2008) mentioned that in many low-income settings, water and sanitation facilities at schools are frequently in bad condition or non-existent, with often poor practice of hygienic behaviours among students. These conditions can be attributed to many factors. Technologies and approaches applied in the schools maybe culturally inappropriate, too expensive, and top-down. There may be inadequate and irregular funding for maintenance. Behaviour change messaging remains in effective: school staff and parents may not understand the urgent need for sustaining improved hygiene behaviours and sanitation facilities. In short there is little universal knowledge of what works. Burrows et al. (2004) also contributed by pointing out that lack of adequate water and sanitation both at home and school prevents girls from attending school when menstruating. Girls have a sense of being unclean when there is little clean water to use and this can lead them to stay away from school. Also there are rarely private facilities at school where girls can go to the toilet or wash the rags

they use during their periods. They can also pick up infections if the water they use to wash rags is dirty, leading to more time off school.

Aunger et al. (2010), Scott et al. (2008), stresses on health education that it is based on the premise that knowledge of the health benefit is sufficient to change people's behaviour. We now know that such cognitive factors are far less effective drivers of change than emotional drives, such as the desire for prestige or concern for one's children. The concept of hygiene education has been superseded by the broader notion of hygiene promotion, which includes this broader perspective. Hygiene promotion refers to hand washing with soap and other practices that promote cleanliness. According to WHO (1993), having access to a safe water source or a latrine does not automatically mean that hygiene and health will improve. The crucial issue is human behaviour, that is, what people do. Investigations have shown that even in the absence of latrines, diarrhoea disease can be reduced through improved hygiene behaviour. There is every indication from the statement that, human behaviour plays a role in health promotion, but that alone will not be sufficient to promote good hygiene amongst children. The provision of sanitary facilities are equally important to help them exhibit good hygiene behaviour both at school and at home. When these things are put in place, children will attend school daily and enjoy their learning.

A systematic review of the health effects of hand washing with soap by (Curtis & Cairncross, 2003) found that washing hands with soap reduced the risk of diarrhoea disease by 42-47%. The practice reduced morbidity from the most life-threatening diarrhoea diseases (typhoid and cholera) by a similar proportion – 48%. There is also some evidence that hand washing with soap potential can reduce morbidity from other illnesses, such as Acute Respiratory Infections (ARIs) and ascariasis (Rabie & Curtis,

2006; Fung & Cairncross, 2009) says that, although the strength of the effect is less certain than for diarrhoea. Improved personal hygiene, with an adequate quantity of water, could conceivably contribute to reductions in water-washed disease such as ringworm, louse-borne illnesses and potentially scabies, although the size of the protective effect remains to be determined. In specific local settings there may be other aspects of behaviour that deserve attention, for example measures to prevent schistosomiasis or guinea worm disease (Esrey et al., 1991). The argument raised above depends so much on the individual behaviour because it is clear that hand washing with soap as well as the provision of sanitation facilities reduces the risk of diarrhoea diseases. Providing these facilities is one thing and using them is another.

The facilities could be provided but girls might not use them if they have not been taught good hygiene practices. In Uganda, the official design requirements for school sanitation are that there should be 4 stances (squat holes) for the first 100 students (a ratio of 1:25) and thereafter the ratio could increase to 1:40. In addition, 2 stances need to cater for male and female teachers and girls as well since girls usually attach greater importance to sanitary facilities than boys.

Zomerplaag and Mooijman (2005) note that, water points should be sufficiently close and at a suitable height for users to encourage them to use water as often as required. Staff toilets and schoolchildren's toilets should be located next to hand washing points that have adequate drainage. Children should also be encouraged to wash their faces to help to prevent eye diseases. A water point close to the classrooms will be useful because when this is put in place, personal hygiene will be encouraged in schools and their health status improved upon. The number of toilets and urinals required for each school depends on the numbers of children and staff (WFP/UNESCO/WHO,

1999),but also on when the schoolchildren and staff have access to the toilets. If access to toilets is restricted to break times, then peak demand could be high, particularly if all the classes have breaks at the same time (Zomerplaag & Mooijman, 2005).This means that most children will always return from break very late leading to less performance for the day. Also the concept of a healthy environment that encourages learning will be defeated because some other children would prefer going into a nearby bush to defecate which at the long round will pollute the air around the school environment.

Also basic hygiene measures taken by staff and schoolchildren-hand washing in particular-should not be compromised by lack of water or lack of access to hand washing basins or suitable alternatives (WFP/UNESCO/WHO, 1999). If soap is not available, then schoolchildren should be encouraged to wash their hands with water and a small amount of wood ash (although this should be avoided if it is likely to block the drainage system).

On the other hand, toilets according to WHO (1997), is not complete without a hand washing point with soap, water and adequate drainage. All toilet designs should include convenient hand washing facilities so that hand washing after using the toilet will become a routine activity for schoolchildren and teachers. Effective hand washing facilities can be built at little cost, with locally available materials. This will defeat the issue of inadequate resources to provide sanitation facilities. The school premises and, to a large extent possible, the immediate surroundings of the school, should be kept free of faecal material to prevent flies and other mechanical vectors from carrying pathogens.

In a contrary argument raised, WHO (1993) argues that having access to a safe water source or a latrine accordingly does not automatically mean that hygiene and health will improve? The crucial issue is human behaviour, that is, what people do. Investigations have shown that even in the absence of latrines, diarrhoea disease can be reduced through improved hygiene behaviour. It is practically clear that exhibiting good hygiene behaviours is as important as having access to improved sanitation facilities in school so children need to be taught the healthy methods and ways that will help them exhibit good hygiene behaviours. By removing contact with excreta, sanitation technologies eliminate one of the main transmission routes of diarrhoea pathogens; it is possible to reduce the morbidity and mortality associated with diarrhoea disease. Reviews of studies conducted on the impact of proper excreta disposal on health found that sanitation improvements reduce diarrhoea morbidity by 22-36% (Esrey et al., 1985 & 1991; Waddington et al., 2009).

With sanitation as with water supply, there is a wide range of possible levels of service, from “cat sanitation” (in which the user carries a hoe to the defecation site and buries their faeces on the spot) to flush toilets with sewerage. The Joint Monitoring Programme (JMP) categorizes the following as “improved” means of sanitation: flush toilets, piped sewer systems, septic tanks, flush/pour flush pit latrine, ventilated improved pit latrine (VIP), pit latrine with slab, and composting toilets.

According to the JMP, other forms of sanitation, such as pit latrines without slabs, may not adequately protect individuals or the environment from contamination. However, unlike water supply, there is no firm evidence of differential health benefits between different levels of service or different sanitation technologies (Norman et al.,

2010). It may also be that sanitation is more effective in dense urban settings than in rural areas.

Urinals for girls and women, as well as for boys and men, have been used with success in some countries they are quicker and cheaper to build than toilets, (DeGabriele, Keast & Msukwa, 2004). If the school has no formal toilet facilities, it is probably best to improve the existing system (e.g. defecation fields) and continue using that system until a sufficient number of toilets are available to provide accessible and hygienic facilities for everyone. If just one or two pit latrines are provided for a whole school, the area around them is likely to rapidly become contaminated, and the pits to fill in a short time. Defecation areas can be improved by using shallow trench latrines rather than open defecation, providing correct drainage to avoid contaminating the nearby environment, and setting up a rotation system (Harvey, Baghri & Reed, 2002).

However, water, sanitation and hygiene relate to the basic human need for drinking, bathing and defecating, and the absence of appropriate WASH conditions can lead to a range of health-related consequences. Poor access conditions can magnify the impact of physical disabilities. Lack of water for bathing and cleaning can affect trachoma, wound management associated with lymphatic filariasis, and perhaps most importantly menstrual hygiene management for women and adolescent girls. Poor access to sanitation can also result in the risk of sexual assault for women (Amnesty International, 2011) and poor access to water can result in safety risks and large calorific expenditures for women and children. From the assertion above, it is an indication that sanitation plays an important role in the lives of individuals especially women and girls in the society.

2.7 Nature of school sanitation and hygiene facilities

A report from WHO/UNICEF (2020) indicates that 63% of schools worldwide had a basic sanitation service; however, coverage varied widely between regions. In sub-Saharan Africa, less than half of schools (47%) had a basic sanitation service, compared with two out of three schools in Central and Southern Asia, three out of four schools in Latin America and the Caribbean, and four out of five schools in Northern Africa and universal access (>99%) in Australia, New Zealand and Europe. Also, 71% of secondary schools and 60% of primary schools had a basic sanitation service. Regarding hygiene service, one in four schools around the world had no hygiene service in 2019. This means that they either had no hand washing facility or no water. Most of the countries where less than 50% of schools had no hygiene service were in sub-Saharan Africa (WHO/UNICEF, 2020).

Most schools particularly those in developing countries have inadequate access to water, sanitation and hygiene facilities (McMichael, 2019). Specifically, most schools are characterized by the following: Non-existent or insufficient water supply, sanitation and hand washing facilities; Broken, dirty and unsafe water supply, sanitation and hand washing facilities; Toilets or latrines that are not adapted to the needs of children, in particular girls; Children with poor hygiene habits and hand washing practices; Unhealthy and dirty classrooms and school compounds and Non-existent or irrelevant health and hygiene education for children (Zormal, 2016).

In a study that took place in 12 municipalities of the North and South Atlantic Caribbean Coastal Regions of Nicaragua, reported that less than half (43%, n=456) of schools had access to water infrastructure. Among those who had water infrastructure (n=197), 26% reported that the water system was non-functional. Regarding

sanitation, 64% of schools had improved sanitation facilities on premises, however, 28% of schools with sanitation facilities reported that they were not used. Among the reasons for the non-use of sanitation facilities stated by school directors were poor conditions (47%), full latrines (29%), people not accustomed to using them (13%) (Jordanova et al., 2015). The authors recommended that schools should focus on “quick win” solutions by enhancing less expensive activities such as training and education programs for teachers and students. Another recommendation was that, national governments should establish continuous monitoring systems to regularly track needs and improvement of water, sanitation and hygiene practices in schools.

In sub-Saharan Africa, the characteristics of sanitation and hygiene facilities in schools are not exceptional. A study carried out by Alexander et al. (2014) in 62 primary schools in rural Kenya reported that less than half of schools met the standard student-latrines ratios for girls, and only one third of schools had a private, lockable place for girls to wash or change while at school. Very few schools had latrines that were in good condition, with locks and were clean.

In Tanzania, a study on 72 primary schools and 54 regional and district education officers to assess the intermediate outcomes of Tanzania National Sanitation Campaign (NSC) showed that only 50% of the schools met the Tanzania guideline of 50 boys per drop-hole, while 43% met the guideline of 40 girls per drop hole. Also, 53% of schools had a reliable water supply, 43% had some functional hand washing stations, but only 29% and 19% had water and soap available at the stations, respectively (Antwi-Agyei et al., 2017). The authors explained that factors such as poor planning and coordination, inadequate funding, and low technical capacity created a barrier to achieve the intended objectives, however, the intervention was

effective.

In a multi-national cross-sectional Water Sanitation and Hygiene study in six rural regions of sub-Saharan African countries (Ethiopia, Kenya, Mozambique, Rwanda, Uganda and Zambia), findings indicate that 1% of rural schools (n=2270) in Ethiopia and Mozambique to 23% of rural schools in Rwanda had improved water sources on premises, improved sanitation, and water and soap for hand washing. Regarding availability of latrine, less than 23% of rural schools in the six countries met the World Health Organization's recommended student-to-latrine ratios for boys and girls. Also, less than 20% of the schools had at least four of five recommended menstrual hygiene services (separate-sex latrines with doors and locks, water for use, waste bin). The authors concluded that the low access to safe and adequate water, sanitation and hygiene services call for substantive interventions that could impact on health, education and gender disparities (Morgan et al., 2017).

The Ghana education policy requires all schools to have adequate sanitation and safe water facilities. However, not all schools in Ghana have these facilities. A report from Education Management Information System (EMIS) 2017 indicates that 30% and 49% of public and private schools in Ghana lack access to basic sanitation and water facilities respectively.

Appiah-Brempong's study (2018) in 37 Junior High Schools in Ghana to examine school-based hygiene facilities reported that there was a facility deficiency in many schools. Specifically, 33% of schools had students washing their hands in a shared bowl, 24% had students using a single cotton towel to dry hands after hand washing, 16% of schools had a functional water facility and only half of the schools had a functional toilet facility within the school premises. However, 88% of the toilet

facilities found in the schools was pit-latrines and this is disturbing since pit latrine is an unimproved toilet type, and hence not recommended for a school setting. The authors concluded that there is a hygiene facility deficit across a range of schools in Ghana.

Another study which was conducted in 30 schools in the Tano South District of Ghana to assess existing sanitation conditions of toilet facilities and other sanitary facilities like urinal and solid waste disposal systems came out with the following findings: more than half (53%) of the schools had no toilet facilities and 83% were without safe water on site. The majority of schools also burned their waste on the school campus during teaching hours. Although all the students washed their hands before eating, only 30% of them wash their hands with soap. In addition, after collecting refuse with their hands, about a quarter (24%) wash their hands with soap, 54% wash their hands without soap while 22% do not wash their hands (Gyabaah et al., 2009).

A study carried out by Bigson et al.'s (2020) also examined personal hygiene practices by the students and the hygienic conditions in which food is cooked and served to school-going children under the Ghana School Feeding Programme (GSFP) in Wa and Cape Coast Cities. The authors found that 92% (n=360) and 65% (n=240) of students in WA and Cape Coast, respectively, did not wash their hands with soap under running water. Also, some of the schools used outdoor latrines, where there are no associated hand washing facilities. The finding further showed that pipe-borne water was the regular source of water for drinking, hand washing and meal preparation. Thirty-one percent of students in Wa and 41% of those in Cape Coast indicated that the conditions under which the meals were cooked, served, and eaten

were generally fair. This was supported by teachers in both schools.

Additionally, in a study that assessed the types, condition and functionality of water, sanitation and hygiene facilities in public 25 primary schools in the Zabzugu District of the Northern Region of Ghana, findings indicate that the main WASH facilities were hand-pump boreholes, covered plastic containers, Kumasi Ventilated Improved Pit latrines, flat-concrete floor urinals, and veronica buckets. While the condition of water infrastructure was good in 36% of the schools, it was satisfactory in 48% of schools and bad in 16% of schools. Also, the sanitation infrastructure was good in 28% of the schools, satisfactory in 42% of the schools and bad in 31% of the schools. Hand washing facilities were good in the majority (91%) of schools (Tiswin et al., 2019).

Moreover, Money et al. (2014) also assessed hand hygiene practices, barriers and compliance to proper hand hygiene in 53 schools benefiting from the Ghana School Feeding Programme (GSFP) in Winneba (n=6), Mpraeso (n=10), Mampong-Ashanti (n=17) and Bolgatanga (n=20). Findings from their study showed that hand washing facilities were available in most of the schools (79%), however, 17% (n=42) of the schools lacked soap at their hand washing facility points, especially in Bolgatanga. The main types of hand washing facilities were veronica buckets, shared basins and standpipes: 57% of the schools in Bolgatanga shared basins for hand washing. The predominant source of water was boreholes (36%) and pipe-borne water (36%) while a few (7%) relied depend on hand-dug well. Importantly, the authors reported that the hand washing facilities in the schools were inadequate given that, averagely, 105 students depend on a hand washing facilities. The study concluded that hand hygiene in schools benefitting from the GSFP has not been holistically attended to, and

therefore recommended the provision of adequate hand washing facilities (Monney et al., 2014).

2.8 Head teachers' role in sanitation and hygiene

Teachers and Head-teachers have a vital role to play in improving and sustaining school sanitation and hygiene. They usually have a coordinating and stimulating role. That is, teachers and head-teachers bring together and engage teachers and other staff, schoolchildren, parents and local authorities in matters related to sanitation and hygiene (Adams et al., 2009). A report from the World Health Organization (2009) indicated that teachers can engage in the following responsibilities to help achieve and maintain adequate sanitation, and hygiene in schools. (1) Monitor the state and use of school water, sanitation and hygiene-enabling facilities (2) Organize the care and maintenance of facilities (3) Encourage students to adopt appropriate behaviours at school and at home through hygiene education. The following are also roles of school directors and head teachers: (1) Organize the setting of targets for water, sanitation and hygiene at school level (2) Ensure liaison with education authorities and other authorities at local and district level (3) Create conditions in which staff are motivated to achieve and maintain targets (4) Develop and enforce rules when required (5) Encourage parent–teacher liaison. Teachers can also be role models. That is, setting good examples by consistently demonstrating good hygiene behaviours for students to learn. Moreover, school rules can also be set by head teachers to promote hygiene systematically. Thus, teachers can remind students to practice good hygiene behaviours at critical times such as after using the toilet or after playing. These reminders can be done before going for break, afterwards and before lunch.

Furthermore, teachers and head-teachers have the role of teaching hygiene behaviour.

Kerich et al.'s (2017) study which was carried out in Londiani Sub-City, Kenya reported that teachers used several methods to teach hygiene practices which included role playing, use of puppets and using the older students to teach the younger students hygiene practices. In addition, 41.5% of the schools used demonstration only to teach hygiene practices while others used observation, demonstration and explanation, clubs and peers or explanations only.

In Ghana, findings from Monney et al.'s (2014) study indicate that teachers played no role in supervision of students during hand washing. They observed directly that most students hurriedly wash their hands while others do not wash at all, however, teachers were not around the hand washing facilities to ensure proper hand washing practice.

Findings from Gyabaah et al.'s 2009 study in Ghana also showed that head teachers showed less concern about the kind of foods sold on school compounds. Out of 30 head teachers, only 2 had been monitoring the quality of food and the sanitation at the school canteen. The remaining of them only inspected the vendors' certificates after which the vendors were allowed to sell on the schools' compound without further monitoring. About 57% (n=60) of the vendors dished out food with their hands when serving food on campus and 78% of them were into unhygienic practice of taking monies with the same hands used to dish out food.

2.9 School sanitation and health

This section also covered literature on school sanitation and how it affects health of girls and their learning. The transmission routes of different excreta and water-related diseases are closely linked and are best imagined as a web of pathways influencing each other. For example, a person sick with diarrhoea can infect another person by direct contact, or by contaminating food, the environment or water. Flies can act as

vectors of pathogens effectively connecting the different pathways. If schools take up the challenge of imparting knowledge on personal hygiene, children will exhibit good hygiene practices will not fall sick let alone infecting another person.

The unequal global distribution of water, sanitation and hygiene-related morbidity, and especially mortality, are largely a consequence of regional differences in economic development, which impacts on the risk of water and sanitation-related diseases (especially diarrhoea) by affecting nutrition, living conditions and, last but not least, water and sanitation infrastructure. A key characteristic of the current (at times rapid) economic development in many current or former low-income countries is the often-unequal distribution of economic benefits within a society and within different areas within the same country. The almost inevitable consequence is that areas left behind make little progress in combating diarrhoea.

The unequal distribution of diarrhoea deaths within countries has been widely reported (Huicho et al., 2006). A typical and well-documented example is India, a country with vast state-level differences in economic development and disease burden, including diarrhoea deaths (Lahariya & Paul, 2010; The Million Death Study Collaborators, 2010). There is less data on water and sanitation-related diseases other than diarrhoea. Since these share many risk factors with diarrhoea it can be assumed that vast regional and sub-national differences in disease burden exist.

This may in particular be the case for parasitic infections such as Schistosomiasis and soil-transmitted helminth infections. The prevalence and disease burden due to the set of very common conditions depends on many environmental factors including sanitation infrastructure and poverty, but also soil conditions and regional climate.

Years ago, using remote sensing has been used to predict geographic differences in worm infection prevalence (Brooker et al., 2006; Simoonga et al., 2009), an approach which unfortunately will remain elusive for many other water and sanitation related-infections, especially diarrhoea as its measurement almost exclusively relies on population-based data. From the assertion, water and sanitation related diseases may largely be attributed to unequal distribution of economic benefits. When this happens, areas that are populated are seriously are challenged with disease burden than areas that are less populated. That is girls may fall sick and this may have a direct effect on the education of girls, if the disease especially is transferable.

Water-related diseases include those due to micro-organisms and chemicals in water people drink; diseases like schistosomiasis which have part of their lifecycle in water; diseases like malaria with water-related vectors; and others such as legionellosis carried by aerosols containing certain micro-organisms. It also contributes to the spread of dangerous food related illnesses like salmonella and E. coli (For other demographic and economic studies about the link between access to safe water and general health outcomes, (Barrera, 1990; Jalan & Ravallion, 2003). Hence both girls' and boys' schooling may be affected by the general health related consequences of poor water, since it is found that children's health is an important determinant of their schooling (Colclough et al., 2000). The literature suggests that having access to safe water prevents diseases that are related to water. Clean water further strengthens the health of children and offers them the right to go to school regularly like any other child.

2.10 Elements of sanitation and hygiene policies

Most countries have diverse policies on sanitation and hygiene. In 2010, the Ghana Education Service (GES) developed the School Health Education Programme (SHEP) Policy and Strategy Framework. The SHEP policy and strategic framework offers general direction for school health programming and provides a good context for Wash in School (WinS) programming. SHEP comprises of four components: (1) disease prevention and control; (2) skills-based health education; (3) food safety and nutrition education; and (4) a safe and health school environment. Safe water and sanitation are one of the three key interventions areas under the “safe and healthy school environment” (the other interventions are: healthy psychosocial school environment and safe physical environment). Among the key factors to consider include: Hygiene promotion and hand washing with soap; availability and quality of water; school toilets and urinals; cleaning, disposal and recycling of solid waste and menstrual hygiene and management.

2.11 Policy implementation challenges that compromise sanitation and hygiene practices in schools

Rosemarin et al. (2008) have indicated that there is a correlation between sanitation, water, health and poverty. Thus, poverty has been recognised as an inhibitor to the implementation of sanitation and hygiene policies in developing countries. That is, in household where poverty levels are high, they prioritize basic needs such as food than considering sanitation and hygiene. For instance, due to poverty most household members may find it difficult to use the only available soap at the household for hand washing. Prioritisation of sanitation and hygiene begins after they move up the development ladder particularly when basic needs such as food are no longer a problem (Kumwenda, 2019). Similarly, Lubaale and Musyoki (2011) have indicated

that there is insufficient focus on sanitation for the poor who live in the urban areas. This according to them is one of the reasons why there is a challenge in the implementation of sanitation and hygiene policies. That means that the poor people in the urban areas must be taken into consideration when sanitation and hygiene policies are being formulated.

Another challenge is lack of political will. Most of the sanitation and hygiene initiatives are implemented by non-governmental organisations with a few by government. Most governments in sub-Saharan Africa do not provide adequate resources to preventive health and this limits preventive health effectiveness like good sanitation and hygiene practices. Also, there is also lack of enforcement of sanitation laws from governments (Kumwenda, 2019).

In addition, there is lack of recent and reliable information on existing sanitation and hygiene practices particularly in the rural areas. This makes demands and needs mostly unknown, therefore, making it challenging to set implementation priorities. Research has showed that availability and accessibility of learning materials on sanitation and hygiene and maintenance of these facilities are associated with children's knowledge and attitude on use and maintenance of the sanitation and hygiene enabling facilities. That is, lack of learning materials on sanitation and hygiene does not provide enabling environment for good sanitation and hygiene promotion (Dube & January, 2012). Moreover, most people access information on sanitation and hygiene in parts, and are not fully knowledgeable about the associated benefits. This therefore makes implementation a challenge (Tearfund, 2007).

Furthermore, culture and behavioural issues compel most people to resist to new sanitation and hygiene practices. Different ethnic groups have diverse beliefs on

sanitation and hygiene. They have been socialised with certain beliefs and practices hence they find it very difficult to adapt to new practices. For instance, in most rural areas in African the practice of dipping in the same bowl of water by a group of people particularly those who eat from the same bowl was very common. However, this practice is slowly being replaced with the practice where each member poured water when hand washing. People who are used to the former practice of washing from the same bowl may find it difficult to change their attitude and this may impact negatively on implementation of hand washing policy (Tetteh-Quarcoo et al. 2018).

Again, lack of access to improved water, sanitation and hygiene practices makes it difficult for developing countries to implement policies on sanitation and hygiene. In most schools in developing countries, access to safe water for drinking and hand-washing is often not ensured. Water may be absent, intermittent, unsafe or difficult to access (World Health Organisation, 2016). The lack of access or inadequate supply limits good hygiene practices such as hand washing among school children (Hunter et al., 2010).

Besides, the challenge of sanitation in many developing countries like Ghana is linked to the absence of sanitation receptacles, insufficient maintenance and cleanliness and the inability to create proper disposal point for solid waste (World Health Organisation, 2016).

Furthermore, challenges to the effective implementation of sanitation policies sometimes derive from the policies themselves (Ekane, Weitz, Nykvist, Nordqvist & Noel, 2016). These authors argue that when the policies are fragmented it poses a challenge to the effective implementation of the policy. Another issue that can pose as a challenge to the effective implementation of sanitation and hygiene policies is that

the very institutions that are responsible for sanitation and hygiene also have a fragmented framework within which they operate and cooperate with other agencies. Ekane, Nykvist, Kjellen, Noel and Weitz (2014) have also indicated that a challenge to the implementation of sanitation and hygiene policies is the fact that sanitation and hygiene are actually not prioritized. They further indicate that another issue that poses a challenge to the effective implementation of sanitation and hygiene policies is the poor co-ordination between not just actors but activities as well.

Curtis et al. (2011) have also noticed an interesting phenomenon. According to these authors, a challenge to the implementation of sanitation and hygiene policies has to do with the over emphasis on technological solutions instead of behavioural or attitude change. This means that these scholars are of the view that good sanitation and hygiene practices have more to do with people's behaviour more than any other thing. As such, Ekane et al. (2016) have also indicated that a challenge to the effective implementation of sanitation and hygiene policies is the inadequate financial as well as technical capacity for organisations that have the mandate to improve sanitation to drive meaningful change in the attitudes of people. Also, Jewitt (2011) have indicated that another problem is the fact that the approaches meant to implement sanitation and hygiene policies have been predominantly top-down and supply-driven approach. It is therefore imperative for people at the top to dialogue with those who are directly suffering from sanitation issues before solutions are proffered.

Another challenge to the implementation of sanitation and hygiene policies is the lack of relevant data and environmental indicators (WaterAid, 2011; ECA, 2012). In implementing such important policy, it is imperative for implementing agencies and actors to have relevant data that reflects the situation on the ground. However, much

of such data churned out and acted upon are not accurate because no rigorous survey or research is carried out to obtain good data that will inform the effective implementation of sanitation and hygiene policies. Furthermore, implementing sanitation and hygiene policies is not effective because water, sanitation and hygiene issues are not clearly and effectively integrated. There is the need to clearly map out the role of water in achieving the implementation of sanitation and hygiene policies (WaterAid, 2011; ECA, 2012).

In addition to all these factors that hamper the implementation of sanitation and hygiene policies is the lack of commitment. Some agencies, actors and individuals who have the mandate of implementing sanitation and hygiene policies do not have the level of commitment needed to implement such policies (UN-Water, 2012). This lack of commitment can sometimes be attributed to putting square pegs in round holes. Thus, who do not have the expertise and flair to actors or workers of sanitation agencies are put in the helm of affairs.

Aside the level of commitment of actors, there is also the inadequate actual spending in the sanitation sector (UN-Water, 2012). There is no doubt that funds are needed to implement sanitation and hygiene policies. However, not much funds are allocated to sanitation and hygiene issues. Money is needed to provide bins, clear gutters, construct functional toilet facilities, provide potable waters, and organize educational programmes or campaigns, among others.

Moreover, there is a challenge in implementation sanitation and hygiene policies because there is an over emphasis of the national policy to the neglect of local or decentralized policy (Lubaale & Musyoki, 2011). Consequently, there is inadequate implementation of the sanitation and hygiene policies that are applicable to the local

or decentralized level. It is an undeniable fact that every locality has its own unique characteristics that differentiate it from others. It therefore stands to reason that different localities may have different sanitation and hygiene needs even though some needs may be general to all. It is therefore important for attention to be given to the sanitation and hygiene policies at the local level.

Finally, Ekane and Gill (2013) have explained that in the implementation of sanitation and hygiene policies, the functionality of sanitation systems installed is not considered. This overemphasis on what needs to be done rather than what needs to be done well. Again, they assert that there is a disconnect between the sanitation and hygiene policy formulated and the practice on the ground. Thus, what has been stipulated on paper is not what is carried out on the ground. This is why there is a challenge in implementing sanitation and hygiene policies.

2.12 Effective implementation of sanitation and hygiene policies for better conditions

Promoting community participation is very important as it promotes accessibility and sustainability of sanitation and hygiene projects. The family in particular plays a crucial role in life skills training on sanitation and hygiene aspects of their children. To promote sanitation and hygiene projects, community members must be involved from the initiation of the intervention to the end phase. According to Ekane et al. (2016, pp. 5-6) “the perspectives and values of local stakeholders involved in sanitation provision and hygiene promotion in the processes of policy formation and decision-making” are paramount.

Teachers can periodically engage the entire school community through joint meeting with teachers and parents. Informative materials on sanitation and hygiene could be

provided during such meetings (Joshi, 2011). A study carried out by Dube and January (2012) among primary school children in Zimbabwe reported that 50% of positive reinforcement on sanitation and hygiene practices came from the home of students compared to 27.3% who identified the school as a reinforcer. The authors concluded that the schools provide a theory-based approach on hygiene issues which are relevant to the school curriculum but may lack the practical dimension of equipping children with everyday life skills.

Political commitment is also important for effective implementation of sanitation and hygiene policies. National governments should be committed to sanitation and hygiene issues by having a thorough review of existing policies, and allocating explicit budgets on sanitation and hygiene programs to district and local governments. Governments should also develop national sanitation and hygiene policies and ensure to create the necessary regulations to advance the strategy. The roles and responsibilities of various actors and stakeholders should be clearly spelt out. Importantly, there should be a mechanism for monitoring and enforcement of the implementation policy (Kumwenda, 2019).

Although culture and behavioural issues may impact negatively on sanitation and hygiene practices, proper demonstration and teaching of sanitation and hygiene practices has been documented to have positive impact on individuals (Bolt & Cairncross, 2004). This implies that policies on sanitation and hygiene would be effectively implemented in schools when it is well taught by head-teachers and teachers. Sanitation and hygiene education should be incorporated in the school curriculum. Also, teachers can explicitly remind students before going for break and afterwards to wash their hand after visiting the toilet or playing. Alternative, stickers

and posters could be placed at advantage point to prompt students about proper sanitation and hygiene practices. (World Health Organisation, 2019). Findings from Dube and January's (2012) study in Zimbabwe showed that although schools had hygiene enabling facilities available, toilets in schools were poorly used and maintained by school children because of lack of supervision of toilets. This suggests that consistent teaching and supervision from teachers will lead to effective behaviour change.

Furthermore, Ekane et al. (2016) have indicated that a factor to the effective implementation of sanitation and hygiene policies involve the well-formulation of policies. Thus, every policy regarding sanitation and hygiene should be well thought through and well-formulated. Accordingly, these authors offer certain criteria of a well-formulated sanitation and hygiene policy. They argue that a well-formulated sanitation and hygiene policy should have the target group(s) clearly stated. Again, the policy should have human and environmental health implications stated. Furthermore, such a policy should have a legal framework backing the proposed plans and implementation plans. There should be budgetary allocation for the policy and finally, the roles and responsibilities of the various actors involved should be clearly stipulated. These criteria, according to Ekane et al. (2016) are in line with the Guidelines for assessing national sanitation and hygiene policies. According to these authors, a well-formulated sanitation and hygiene policy has the potential to influence people to have the right attitude and behaviour towards sanitation and hygiene issues or practices.

Ekane et al. (2014) have further given some factors that may aid in the effective implementation of the sanitation and hygiene policies. As indicated earlier, the

approaches to implementing sanitation and hygiene policies are mainly top-down and supply-driven. Consequently, these authors indicate that approaches to the effective implementation of sanitation and hygiene policies should involve demand-driven strategies. Thus, the people on the ground who are being affected by sanitation and hygiene issues should be actively involved and making demand as to what will help them. This is line with the definition of sanitation by UNICEF which indicates that sanitation is a process whereby people demand for a healthy environment (UNICEF, 1997). Ekane et al. (2014) have also indicated that effective sanitation and hygiene policies should invariably involve the private sector. This is because private individuals and sanitation firm have the will to implement sanitation policies because they are motivated by profit. It is not surprising that, in Ghana, the Zoom lion Company, a private firm, is actively involved in sanitation and hygiene policies.

2.13 School hygiene and sanitation ideas

In a study by Gyabaah, Awuah and Ackerson (2009), they sought to look at the sanitation in the basic schools in the Tano South District of the new Ahafo Region. In this study, the authors sought to find out the existing sanitation conditions of the toilet facilities in the various schools in the District. In addition to this, the authors also investigated the conditions of other sanitary facilities like urinal and solid waste disposal systems that were available in the various schools. The same study also sought to find out the hygienic practices that were prevalent on the various school compounds. In conducting this study, 30 basic schools were selected for the study. This included both primary and Junior High Schools. This study adopted a mixed method approach as questionnaires and interviews were used to collect data in addition to the secondary data that was collected. In these 30 basic schools, a structured questionnaire was administered to the students as well as food vendors in

these schools. In addition, secondary data on water and sanitation related a disease was collected from some health institutions in the district. Such health institutions included the Bechem Government Hospital, the Techiman Health Centre, Dermaa Health Centre and the Brosanko Health centre. Apart from the questionnaires that was administered to the students and food vendors key informant interviews were also conducted with some stakeholders in the district. These included head teachers, health teachers, the Regional Water and Sanitation Agency, District Director of Education as well as the District SHEP were interviewed.

This study revealed a number of findings. Of the thirty (30) schools that were selected for the study, it was evident that sixteen (16) of the schools representing about 53% did not have toilet facilities present. In addition, 83% of the schools did not have safe water on the school compound. It was observed that while all the students washed their hands before eating, only 30% of them washed with soap. The remaining 70% of the students did not wash their hands with soap before eating. This means that even though the students are conscious of the need to wash their hands, they did not do so with soap. It therefore meant that there has been some improvement in the attitudinal change regarding the washing of hands before eating. However, this could be improve if students wash their hands with soap and water and not just water. Apart from the issue of washing their hands before eating, there was also the issue of the washing of hands after collecting refuse. It was observed that only 24% of the students washed their hands with soap after collecting rubbish. On the other hand, 54% of the students did not wash their hands with soap. They only washed their hands with water. However, unfortunately, 22% of the students did not wash their hands at all after collecting rubbish with their hands. This means that the encouragement of students to always wash their hands should be encouraged. The study also revealed that as many

as 65% of the coordinators for the SHEP were not performing their duties effectively. They blamed this on the lack of funds, facilities, personnel and logistics.

In another study, Zormal (2016) sought to find out the causes of the state of the sanitation and hygiene conditions in the Junior High Schools in the Wa Municipality. The study sought to find out the impact this had on the girls in the schools. The study also adopted the mixed method approach. As a result, both probability and non-probability sampling methods were used in selecting respondents. The tools for data collection include questionnaires, interviews, focus group discussions and observations. In all, the sample size for this study stood at 290.

This study also revealed a number of findings. It was evident from the study that the state of sanitation and hygiene facilities in the Wa Municipality was poor. Consequently, the poor state of the sanitation and hygiene conditions led to absenteeism and poor academic performance, especially with respect to the girls. Thus, the author concluded that the poor state of sanitation and hygiene conditions in schools affect the girl child education negatively. The researcher, therefore, recommended that sanitation and hygiene lessons be integrated into the curriculum for students at the Junior High School level.

In a recent study, Abanyie et al. (2021) sought to investigate the relationship between WASH in basic schools and the possible implication on health and academics in the Wa Municipality. Accessibility, availability, quality, and sufficiency of WASH in public schools were the focus of this study. The respondents for this study were head teachers of the basic schools in the Wa Municipality. These responded to a self-administered questionnaire. In all, 56 schools were selected for the study. Through purposive sampling, head teachers were selected. These responded to the

questionnaire. In addition to this, the researchers interviewed teachers and students. The aim of the interview was to solicit views on the accessibility of WASH facilities and the experiences of teachers and students regarding these facilities in their respective schools.

The results of the study revealed that majority of the schools did not have potable water. Thus, only 37.9% of the school had access to potable water. The remaining 62.1% did not have access to potable water. However, with regards to the schools that had water, 27.5% of the sources of potable water was contaminated. The encouraging results from the study are that 9 in 10 of the schools had toilet facilities. Even though, all schools must have toilet facilities this is a bit encouraging. Unfortunately, 77.8% of these available toilet facilities were shared by both students and teachers. The norm should be that students should have their designated toilet facilities while teachers should also have their toilet facilities. Almost all (96.6%) the toilet facilities were gender-segregated. Of the schools that had toilet facilities 59.3% did not have toilet bins. Another unfortunate thing is that 41.4% of the schools had the problem of open defecation. On the whole there were no hygiene facilities in the majority of the schools. For example, 75.9% did not have any hand washing facilities that the students could use to wash their hands. It was also observed that toilet facilities and solid waste were generally poorly managed in the schools and this was compelled some students to resort to open defecation. Conclusively, the state of WASH in the most of the schools was not the best. This can be attributed to the unavailability of sanitation and hygiene policies, facilities and funds. Consequently, this study recommended that the relevant stakeholders in the Wa Municipality address the situation by ensuring that WASH facilities are improved in the basic schools.

Bride and East (2020) also conducted a study on the sanitation and hygiene conditions of some basic schools in the Volta Region. The researchers focused on four schools namely Anyanhu Basic School, Philio Basic School, Agbledomi Basic School and Dzita Basic School. All these schools are within the villages of Dzita and Dzita-Agbledomi. The researchers used a quantitative method of data collection in a form of a survey. Using a questionnaire designed by UNICEF and WHO Joint Monitoring group, the researchers looked at the issues of acceptability, accessibility, availability and quality. The findings of the study revealed that all four basic schools had the ability to provide basic sanitation services for both teachers and students. However, the number of student to toilet ratio in all four (4) was well above the recommended ratio. With the exception of Dzita Basic School, all the other school used pit latrines as toilet facilities. These latrines were in bad conditions. For example, some of them had dark cubicles and also smelled. It was for this reason that both teachers and students resorted to open defecation. In all four schools, menstrual hygiene management was poor. Finally, it was evident that only one of the schools provided hand washing facilities that included soap and water.

2.14 Summary of Literature Review

This chapter was dedicated to literature review. Thus, the chapter discussed the studies of other researchers regarding sanitation, hygiene and their policies in schools. Specifically, the chapter began with a discussion of the overview of sanitation. It then progressed to discuss sanitation and hygienic conditions in schools. This was followed by a discussion of the nature of school sanitation and hygiene facilities. Furthermore, the role of teachers in sanitation and hygiene was discussed. Elements of sanitation and hygiene policies were discussed. This was followed by a discussion of the challenges facing the implementation of sanitation and hygiene policies.

Consequently, there was also a discussion of the effective ways of implementing the sanitation and hygiene policies. The final part of the literature review involved an empirical review. This was where similar studies were discussed taking into consideration the objectives, methodologies as well as the findings of the various studies. The next chapter discusses the research methodology employed in carrying out this study.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Chapter Three discusses how the research was carried out. Thus, the research methodology employed in achieving the research objectives is discussed here. The discussion entails the procedures or methodology employed for the achievement of the research objectives. The discussion touches on the research paradigms, research design, and research approach, characteristics of the school and respondents, population, sampling technique and sample, instrument used, validity and reliability, sources of data collection, data analysis procedure and ethical issues.

3.1 Research paradigms

A research paradigm is a set of rules that guides research. It can be viewed as a philosophy that underpins the conduct of a research. A research paradigm is “a set of values and techniques which is shared by members of a scientific community, which act as a guide or map, dictating the kinds of problems scientists should address and the types of explanations that are acceptable” (Kuhn, 1970, p. 175). In addition, a research paradigm can also be defined as a “system of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them” (Morgan, 2007, p. 50). In the social sciences the popular research paradigms include positivism, interpretivism and critical realism.

The study is underpinned by the nominalist ontological view of reality which argues that social reality has no external existence such that it can be objectively and dispassionately accessed, but rather the result of human thinking (Burrell & Morgan, 1979 cited in Kusi, 2012). In line with these theoretical positions, the study employed

the philosophy of the interpretive paradigm which argues that social reality is created jointly through meaningful interaction between the researcher and the participants and in the socio-cultural context of the participants (Grbich, 2007; Rugg & Petre, 2007 cited in Kusi, 2012).

3.1.1 Positivism

Positivism is a “doctrine that maintains that the study of the human or social world should be organized according to the same principles as the study of the physical or natural world. In simple terms, positivism maintains that the social sciences should be modelled on the natural sciences” (Halfpenny, 2005, p. 571). Another definition of positivism has been given by Fox and Miller (1998). These scholars assert that positivism can be defined as research approaches that employ empirical methods and make extensive use of quantitative analysis. According to Lee (1992) the adoption of quantitative research techniques is associated with positivism. Such quantitative research techniques, according to Lee (1991), include the use inferential statistics, hypothesis testing, mathematical analysis, and experimental and quasi-experimental design.

There are several tenets of this research paradigm. Firstly, (Easertby-Smith et al. (2012) have explained that those who believe in this paradigm should be detached from the phenomenon they are studying. Thus, things should be studied objectively. It is therefore not surprising that Chen and Hirschheim (2004) have asserted that positivism is based on objectively ontology. This means that the existence and meaning of a phenomenon are assessed objectively. Another tenet of this paradigm is that social reality is the physical and or natural world that can be measured (Lee, 2004).

As mentioned earlier, with regards to the methods employed in gathering, analysing and reporting data, the positivism paradigm subscribes to the quantitative methods. The means of collecting data include survey as well as field experiments (Chen & Hirschheim, 2004). Positivist analyses data using statistical analysis (Weber, 2004) after collecting large amounts of data. Thus, one cannot say that a small amount of data is enough to carry out statistical analysis if the person prefers to be called a positivist.

Ponelis (2015) has asserted that the concept of reliability, validity, reliability and generalizability is strongly connected to the positivism paradigm. Validity indicates the appropriateness and accuracy of variables used to measure phenomena. Reliability indicates that the same results will be produced by two or more researchers using the same measured in a given project. Reliability implies that the entire study from data collection to analysis can be replicated by other researchers to produce the same results. Generalizability is the degree to which research results can be generalised to the wider population (Ponelis, 2015).

3.1.2 Interpretivist paradigm

The interpretivist paradigm is another paradigm in the social sciences. This paradigm can be viewed as the direct opposite of the positivism paradigm (Ryan, 2018). Ryan (2018) explains that this paradigm originates from the conceptualizations of Kant and value subjectivity. According to Halfpenny (2005, p. 574) interpretivism is associated Max Weber who stressed that “the method of *verstehen* or interpretive understanding is central to the study of human activities because it provides access to the meanings of those activities shared by the people engaged in them” (Halfpenny, 2005, p. 574).

Interpretivists believe that reality is a product and it is socially constructed (Klein & Myers, 1999). From their perspective, interpretivists seek knowledge by understanding phenomena as driven by the meaning people assign to them (Klein & Myers, 1999). This means that the meanings of social phenomena are social constructed by people. It is in this light that Hudson and Ozanne (1988) have explain that interpretivist deny the existence of only one real world. Thus, several understandings of a particular phenomenon exist and these understandings are constructed or by different people. This is why this paradigm is sometimes called constructionism.

Myers (2004) explain that adherents of this paradigm begin with the assumption that access to reality is only through social constructions including shared meaning, language and consciousness (Myers, 2004). In interpretive research there is no need to define independent and dependent variables as is done in quantitative research; there is rather a focus on the full complexity of human sense-making as the situation emerges (Kaplan & Maxwell, 1994).

Neil (2006) has offered an alternative understanding of this paradigm. According to this author, the paradigm is a means to gain insights through discovering meanings that come through the interaction with some people concerning a social phenomenon in an effort to obtain an understanding of the subjectively created social world “as it is” (Mattila & Aaltio, 2006).

Packer (1999) has explained that the paradigm aims to explore how people experience and interact in the real-world situation. Moreover, Guba and Lincoln (2001) explain that this is an inductive paradigm and meanings are argued from the particular to the general or from the specific to the general.

The focus of interpretivism is to produce understanding of the context of the study or phenomenon (Walsham, 1993; 2006). In producing this understanding, the interpretive researcher influences and is influenced by the object of investigation or the phenomenon or being studied. This is because the best way a social phenomenon can be really understood is when the researcher looked from the inside.

3.1.3 Research paradigm adopted

This study adopts the interpretivist paradigm. This paradigm believes that social reality is subjective and such can be studied by the involvement of the researcher in the phenomenon under study. This paradigm allows for individuals to have their own interpretation of social reality. This is mainly because interpretivists believe that there is no one objective social reality and that there can be multiple realities. Interpretivism is also known as constructionism. This means that every individual constructs his/her own meaning of social reality. The research approach that is associated with interpretivism is the qualitative research approach. Another determinant of the research approach, as mentioned earlier, is the nature of the research objectives and questions. For this study, the research questions are exploratory in nature. For exploratory studies, researchers use the qualitative research approach. As such, this study also uses the qualitative research approach. Thus, in investigating the head teachers' role in the implementation of hygiene and sanitation policies in a school, it is believed that this investigation is not a subjective one. Some of the head teachers' will give their personal take on their role.

3.2 Research approach

In social science research and educational studies, researchers use three research approaches: quantitative (conclusive), qualitative (exploratory), and mixed methods

(quantitative and qualitative). The choice of a research approach or method is usually dependent on the research paradigm and objectives of a study. This study subscribes to the research paradigm of interpretivism. Qualitative research method is mainly employed to elicit people's experiences, perceptions and views concerning a social phenomenon. Action research, case study research and ethnography are examples of qualitative research (Creswell, 2014). According to Klein and Myers (1999) sources of qualitative data include interviews, observation, documents, texts as well as impressions and reactions. Thus, qualitative research method gives you the insider perspective of a phenomenon. Put differently, Creswell (2014) assert that qualitative research provides explanation on the meaning, processes and patterns within a context while at the same time presenting a better understanding of social reality.

A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. It is an established research design that is used extensively in a wide variety of disciplines, particularly in the social sciences. A case study can be defined in a variety of ways the central tenet being the need to explore an event or phenomenon in depth and in its natural context.

3.3 Research design

This particular research adopted for this study is case study approach for the study. According to Sellitz, Wrightsman and Cook (1976), as cited in Akhtar (2016), a research design is “a master plan specifying the methods and procedure for collecting and analysing the needed information.” This means that a research design entails three key elements and these elements are collecting, measuring and analyzing data. Pandey and Pandey (2015) also define research design as “the arrangement of condition for collection and analysis of data in a manner that aims to generalize the findings of the

sample on the population.” The characteristics of a good research design include objectivity, reliability and validity.

The researcher decided to use this methodology because a survey is an excellent vehicle for measuring attitudes (Barbie 1992). A descriptive statistic was used for the data analysis. The descriptive method, according to (Wimmer & Dominick, 2006), is used when the interest is to discover the current situation of the area under study.

The justification for the quantitative research approach is that quantitative data and subsequent analysis gave a broad grasp of the research problem. The chosen design has the advantages of being simple and allowing for a more in-depth examination of the quantitative results. This design is very useful when a quantitative investigation yields unexpected results (Morse, 1991).

3.4 Site and subject characteristics

The setting of this research is the Akwapim North Municipality in the Eastern Region of Ghana. Specifically, the study was conducted on the Presbyterian Senior High Technical School, Larteh. The school is one of the three secondary schools located in Larteh. Larteh is a town located in the Akwapim range.

The study was carried out at Presbyterian Senior High Technical School in the Akwapim-North Municipality of the Eastern region of Ghana. It is a Government assisted school and also a mixed Boarding and Day school with adequate boarding facilities. It is along the main Larteh township road. It is located close to the Larteh Health Center, sited on a ridge overlooking the Akwapim Mountains. The school has teaching staff population of 90 and non-teaching staff of 25 with student population of one thousand two hundred and fifty (1250). The school is one of the schools that run the double track system. The Presbyterian Senior High School, Larteh is a school that

offers programmes such as General Arts, Visual Arts, General Science, Business, Home Economics and Technical Education. The school has a cemented compound where all the buildings including administration, classroom blocks, dining hall and girls' dormitory are located on. The boys' dormitory is detached from the school. The school has male and female compound prefects who oversee the general sanitation on the school compound. Aside this, each class is responsible for the sanitation and hygiene of their classrooms.

The school has a board of directors and a management team which is made up the headmistress; three assistants namely the assistant headmaster in charge of academics, assistant head domestic and the assistant head in charge of administration; and a head of finance that is the bursar. Aside this, the school also has a senior housemaster and a senior housemistress who see to all matters of students including sanitation and hygiene in the boarding houses.

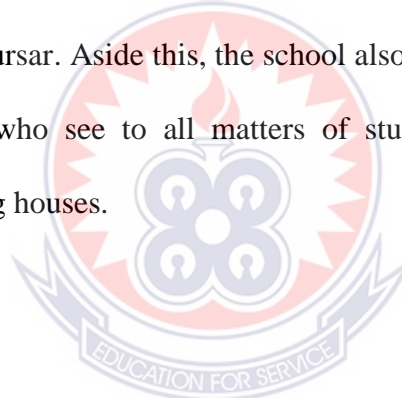




Figure 3.1: District Map of Akwapim North the study area

3.5 Population of the study

A population of a study is the total relevant number of items within the contextual and geographical scope of a research (Marzyk, DeMatteo & Festinger, 2005). Thus, a population is collection of variables about which a study seeks to make inference. The population of this research consists of all the headmaster in the Larteh SHS in the Akwapim North Municipality in The Eastern Region of Ghana.

In terms of population, the population of the study will include heads of school and teachers.

The population of this study is therefore made up of the Senior High School headmistress, assistant headmaster in charge of academics, assistant headmistress in charge of administration, the assistant head domestic who work with the housemaster and housemistress and the head of finance the bursar.

Population is a group of individuals possesses one characteristic that distinguishes them from other groups (Creswell, 2012). The word population referred to all items that meet a set of specifications or a specified criterion. For instance, we might have a population made up of medical doctors (individuals who treat patients) or basic school teachers (individuals who teach at basic levels of education).

Target population (sometimes called the *sampling frame*). This is the list or record of individuals in a population that a researcher *can* actually obtain the sample (Creswell, 2012). This list comprises the target population or sampling frame. The target population according to Orodha (2005) is an augmentation of entities that hold the information being sought.

The Sample is the group of participants in a study selected from the target population from which the researcher generalizes to the target population (Creswell, 2012). *Sampling Technique*: Sampling involves the process of consideration and selection of the participants for your study (Marguerite, 2006) Participants are those individuals who voluntarily participate in a study to be the subject of the research after giving informed consent. They are the adults or children who will receive your treatment, take your surveys, or be under your close observation. The strategies you use to select your respondents depended on the kind of research you choose to conduct.

This study employed simple random sampling; simple random sampling is a procedure in which each member and each group of elements in the population have an equal chance of being selected as a part of the sample. Being one of the easiest forms of selecting the participants, this method is a fair way to select a sample. As each element of the population has an equal opportunity or chance of being chosen,

simple random sampling is the popular probability sample. Even though it may not be hundred percent accurate, it is an ideal method of choosing the sample, still the result obtained through this method has high external validity or generalizability in relation to some other method of sample selection. Simple random sampling is deemed appropriate for this study because, as the name indicates, simple random sampling is nothing but a random selection of elements for a sample. This sampling method is employed where the target population is very large.

3.6 Sample size and sampling technique(s)

Sample refers to those who are selected to take part in the research. In other words, the sample refers to the relatively small part of that research population who are actually chosen to participate in the study Denscombe (2010).

Sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected (Ary, Jacobs, & Razavieh, 1972 as cited in Yount, 2006). In all the sample size for this study is five (5) participants thus five heads. As a qualitative study, a non-probability sampling method was used. Specifically, the purposive sampling technique was adopted. Addison (2016) argues that purposive sampling helps in selecting the respondents who have the ability to provide the required information needed to meet the research objective. Thus, respondents were purposively selected to garner their views on head teachers' leadership roles in the implementation of sanitation and hygiene programmes.

The sample included the headmaster and assistant headmasters of the selected schools. The names of qualified headmasters were acquired and scribbled on pieces of paper in each school. After that, they were folded and separated into two boxes, one

for male instructors and the other for female teachers. After that, for each gender, a proportional representation was computed. The boxes were then shaken, and a paper was taken from each box, one at a time, and the name on the paper was recorded. The process was repeated until all of the teachers were proportionately represented by gender.

3.7 Instrumentation

Data collection instruments are techniques or strategies the researcher uses to gather information from the participants when in the field. Johnson and Christensen (2014) defined data collection as a technique or method for obtaining data physically that has to be analysed. There are numerous methods used to collect data in research. The methods and sources of data available to qualitative researchers include: structured, semi-structured, unstructured interview and focused group interviews; structured and unstructured observations; documentary and archives sources; letters; diaries; memories; and structured and unstructured questionnaires (Kusi, 2012).

During the interview conversations, the semi-structured interview guide which contained a list of questions and covered specific topics were administered in particular order recommended by Cohen and Crabtree (2006). An interview is a two-way conversation in which the interviewer asks the participant questions to collect data and learn about the participant's ideas, beliefs, views, opinions and behaviours. Johnson and Christensen (2014) state that an interview is an interpersonal encounter and that it is important for an interviewer to establish rapport with the person she/he is interviewing. The aim of qualitative interviews is to view the world through the participants' eyes and this is said to be a valuable information source as long as it is provided correctly (Maree, 2010). Cohen, Manion and Morrison (2011) describe

interviews as a widely used instrument for data collection. They further state that an interview is a flexible tool for data collection which enables multi-sensory channels to be utilised such as verbal, non-verbal, spoken and heard. When the researcher interviews the participants, his/her aim is always to obtain descriptive data that is rich so that the researcher can understand the construction of social reality and knowledge as presented by the participants.

A semi-structured interview is a meeting in which the interviewer does not strictly follow a formalised list of questions. The interviewer may prepare a list of questions but does not necessarily ask them all, or touch on them in any particular order, using them instead to guide the conversation (Doyle, 2019). The semi-structured interview guide provides a clear set of instructions for interviewers and can provide reliable, comparable qualitative data.

In this study qualitative data was collected through semi-structured interview. Accordingly, semi-structured interview was employed as an instrument for collecting data.

For this study, a research tool was created. The only units of the respondents who responded to the interview were the public schools, and it was composed of three interview guides for the heads of the chosen schools. Each interview guide was made up of open ended questions to ascertain the respondents' views with respect to factors that could be responsible for the sanitation and hygiene problems in school.

3.7.1 Data collection instrument

The data collection instrument employed in this study was a semi-structured interview guide. This instrument consisted of various questions that were aimed at eliciting

views from respondents regarding the sanitation and hygiene of the Presbyterian Senior High and Technical School, Larteh the questions in the bordered on the various research objective or questions stipulated in Chapter One. Probing questions were also adopted to contextualize the question for the respondent.

Interviews were a key method to explore the social phenomenon of sanitation in the schools. The interviews gave me the chance to build relationships with the interviewees and allowed me gain some understanding of the lives of the research participants (Kayrooz & Trevitt, 2004). To explore the various aspects of this issue in the school, I conducted interviews with a number of key informants. Key informants were people who could provide extensive and detailed information about the school and its sanitation problems.

Key interviewers (KII) started with head of school to explore hygiene and sanitation. The primary questions for the head teachers were about the forms and processes of ensuring good sanitation in the school.

DeJonckheere and Vaughn (2019) postulated that semi structured interview is appropriate for a qualitative study because it can be conducted on phone, through the internet or face-to-face, and allows the interviewer the opportunity to probe questions for respondents to express their true feelings using an interview guide based on the research questions. Macmillan and Schumacher (2001) added that a semi-structured interview guide allows the researcher the opportunity to work out some questions (aide memoire) in advance, free to modify them based upon his/her perception of what seems most appropriate. Since an aide memoire or guide is allowed in this type of interview, the questions were phrased in a way that allowed for probing and clarification of answers on the key issues raised in the research questions.

These interviews gave me information about the sanitation issues from the perspective of the school directors and helped me to identify other educational stakeholders.

3.8 Data collection procedure

In order to elicit views on head teachers' leadership roles in implementing hygiene and sanitation programmes in a secondary school setting, the semi-structured interview guide was used. Thus, the questions were largely semi-structured questions and this allowed for new questions and themes to be generated as the interview was carried out. The questions were also being open-ended allowing participants the freedom to speak freely on issues.

The Researcher moved to the schools with an introductory letter endorsed by the Head of the Department of Educational Administration and Management from the University of Education, Winneba to access secondary data for the research work. Then the introductory letter was sent to the Akwapim North municipality Education Office for an official letter to be sent to the head of the public school for the collection of data. The researcher conducted all interviews.

All interviews were tape-recorded if respondents gave permission. All audio recordings were then transcribed. Each transcript was read several times in order to glean pertinent themes regarding the research questions. Thus, such an iteration exercise enabled the researcher to know the similar patterns in the responses of the participants. Additionally, the very words of the respondents were quoted to support the themes that were gleaned from the interviews. The analysis of the qualitative data was done in line with other people's studies. Thus, studies that support the findings of this study or otherwise were mentioned in the discussion of the findings.

3.9 Data analysis procedures

The researcher spent one week visiting the target schools to familiarise himself with the environment and the administration before going to the field for data collection. Head teachers' interview guides were categorized based on the patterns of replies provided by respondents and their homogeneity, as indicated by Mugenda and Mugenda (1999). They were then coded in order to assign magnitude/numbers to the various answers being counted. The responses were organized in relation to the themes or research questions and from this information, the researcher wrote the narrative and interpretative report in order to explain and reflect the situation as it occurs in the selected schools. This formed the basis of qualitative analysis. The Researcher moved to the school, with an introductory letter endorsed by the Head of the Department of Educational Administration and Management from the University of Education, Winneba to access secondary data for the research work. Then the introductory letter was sent to the Larteh Akwapim North Municipal Education office for an official letter to be sent to the heads of the public school for the collection of data.

3.7.2 Trustworthiness of the instrument

Trustworthiness is one of the most popular criteria used in determining the quality of qualitative studies (Kusi, 2012). Robson (2011) defines trustworthiness as the extent to which one can have trust or confidence in the study and its findings. The components are credibility; transferability; dependability; and conformability. The concept of trustworthiness is always questioned by positivist researchers, since it does not line up with validity and reliability, from their perspective. Yet, four criteria (credibility, transferability, dependability, and conformability) are used to support qualitative researchers so that their work is up to academic standards (Shenton, 2004).

Lincoln and Guba (1985) highlighted four issues that surround trustworthiness. Credibility is an evaluation of whether or not the research findings represent a “credible” conceptual interpretation of the data drawn from the participants’ original data (Lincoln & Guba, 1985). Transferability is the degree to which the findings of this inquiry can apply or transfer beyond the bounds of the project. Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and theory generation. Conformability is a measure of how well the inquiry’s findings are supported by the data collected (Lincoln & Guba, 1985). These issues that Lincoln and Guba have explained are now accepted by many researchers.

3.7.1 Transferability

Johnson and Christensen (2014) state that although qualitative researchers do not generalize their research findings to other settings, lessons learned can benefit people from other settings and they describe transferability as the fit or match between the research context and other contexts as judged by the reader. Maree (2010) states that transferability refers to the way in which a reader is able to take the study findings and transfer them to another context. In this study for the researcher to achieve this, conclusive information concerning the research sites and rich descriptions of perceptions of selected participants were presented.

3.7.2 Credibility

According to Johnson and Christensen (2014), credibility is an alternative to validity that is internal and the goal being to demonstrate that the inquiry was conducted in such a manner as to ensure that the subject has been accurately identified and described. Maree (2010) contributes by saying that by allowing research participants and other people that may have an interest in the research, to comment on the research

findings, interpretations and conclusions may enhance the credibility of the study. To ensure credibility in this study, the researcher designed the research in a manner that accurately identified and described the problem to be investigated and also shared the work with some of the respondents to afford them the opportunity of providing constructive criticism on the report. As suggested by Robson (2011), the researcher also used the triangulation of data collection methods to make the study more credible hence, researcher presented an accurate description and interpretation of human experiences of the respondents.

3.7.3 Dependability

Dependability refers to whether the researcher can track the processes and procedures used to gather and interpret data. Dependability is the extent that the study could be repeated by other researchers and that the findings would be consistent (Creswell, 2013). In other words, if a person wanted to replicate your study, they should have enough information from your research report to do so and obtain similar findings as your study did. To achieve dependability, the researcher asks whether the research process is logical, well documented and audited. The reader should believe and be convinced that findings, as presented by the researcher, are correct. Dependability was ensured in this study by means of a detailed description of the research process including data collection and analysis procedures as proposed by Johnson & Christensen (2014).

3.7.4 Confirmability

Huberman (1994) consider that a key criterion for confirmability is the extent to which the researcher admits his or her own predisposition. Lincoln and Guba (2011)

state that confirmability is the final construct and that it captures the traditional concept of objectivity.

Lincoln and Guba (2011) point out that it is necessary to place emphasis on asking whether the findings of the study could be confirmed by another and that by doing so they remove evaluation from some inherent characteristic of the researcher (objectivity) and place it squarely on the data themselves. In this study to ensure confirmability, the researcher kept the raw data collected safely from the respondents. The raw data included field notes, recordings of interviews with the respondents. Confirmability was also ensured by presenting the findings in a way that would facilitate their corroboration and confirmation by others. Furthermore, the audio-recorded data from the interviewees will be kept for at least two years if possible. In doing so, trustworthiness will be assured.

In qualitative research, according to Creswell and Poth (2018), validation is an attempt by the researcher to assess the accuracy and trustworthiness of the findings. They explained that accuracy is a distinct strength of qualitative research in an account made through extensive time spent in the field, the closeness of the researcher to the participants in the study (creation of relationship), and a thick description of participants. The researcher in this case had a prolonged engagement with the participants of the study. This prolonged stay in the research field opened multiple opportunities for trust building and establishment of cordial and lasting relationship with the research participants. By virtue of the good rapport with the participants, the researcher could collect reliable data through in-depth interview with the participants, hence, ensuring trustworthiness of the data and the findings of the study.

On ensuring the trustworthiness of the research instrument and the data collected, the supervisor of the researcher and the research consultants scrutinised the interview guide before it was administered, hence, a great deal of technical proficiency was employed. After each interview session, the researcher played the audio recording for the respondents to listen to and agreed that what they heard was exactly what they said during the interview.

Concerning the transferability in this qualitative research, the researcher used the term to mean generalizability, or external validity, which in this study is established by providing evidence that the research findings could be applicable to other contexts, situations, times, and populations (Statistics Solutions, 2020). Concerning this, the findings of the current study is applicable in institutions of different environments, experiences and educational opportunities.

3.7.5 Sources of data

Data collection is one of the most important stages in conducting research (Addison, 2016). Primary and secondary sources of data were employed for the purpose of this study. As mentioned earlier, the sources of data for qualitative research include interviews, observation, and fieldwork, among others. This study that looks at the role of head teachers' role in the implementation of sanitation and hygiene programmes of adopts the interview method.

With regards to the primary data, interviews were conducted with key participants of the study to collect relevant information useful to the researcher in achieving the goals of the study. However, with regards to the secondary data, information from research-relevant books, journal articles, websites and catalogues were used.

3.10 Ethical considerations

There were several ethical issues that were followed in carrying out this study. These included:

Anonymity

The entire participant in the study was assured of the confidential information they were ready to give to the researcher. The confidential issues included the protection of the respondent identity and the information given to the researcher; in achieving this head teachers were given numbers which the researcher wrote on their sheets instead of their names which will make it difficult for people to identify the respondents. The analysis of the data given by the respondents were collectively discussed without linking a particular information to a particular individual or group of individuals and their respective school categories;

- a. **No Harm to the Participants:** The researcher in this study throughout did not do anything that could adversely affect any respondent physically, psychologically and emotionally. Questions were basically framed according to the status of the respondents in the study. Thus, no respondent was compelled to answer any question that did not relate to him or her;
- b. **Voluntary Participation:** No single respondent in this exercise was coerced in any form to take part in the study. All respondents who took part in this study did that voluntarily; in order not to violate the principle of informed consent in the social research, letters of introduction were sent to the school authorities to seek permission before the conduct. In these letters, the purpose of the study was clearly stated to both the respondents and the school authorities.

Confidentiality

The researcher made sure that confidentiality was maintained. The aim was to protect participants from becoming victims of their participation in the study. Therefore, the collected data were kept in such a way that no unauthorized individual could access them.

Privacy

Participants were told that their responses would be kept confidential and that no one known to them would have access to the information provided and that their names even if provided would not be recorded. Additionally, all references were duly acknowledged to avoid plagiarism.

Informed consent

The research respondents were informed about the purpose and objectives of the study. They were also enlightened about its procedures, risks, and benefits. After understanding all about the study, respondents were requested to participate in the study without being forced. In that respect, the respondents were informed about their freedom to respond to questions posed to them by the researcher.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the views of head teachers regarding the implementation of sanitation and hygiene policies in the Presbyterian Senior High and Technical School, Larteh in the Eastern Region. In this chapter, the socio-demographic characteristics of the head teachers are discussed first. This is followed by issues that address the research objectives. The research objectives of the study include investigating the sanitation and hygiene conditions in the school, finding out the elements of sanitation and hygiene in the school, investigating the policy implementation challenges that have compromised sanitation practices in the school, and finally exploring the effective ways of implementing the sanitation and hygiene policy to ensure better hygiene and sanitation conditions in the school.

4.1 Socio-demographic characteristics

Table 4.1 shows the characteristics of the respondents. In total, five respondents were interviewed, out of which two of them were males and three of them were females. The age of the respondents ranges from 40 to 55 years. All of them had attained higher education and they had been in school for a period of 1 to 14 years.

Table 4.1: Socio-demographic characteristics of respondents

Variables	Number	Percentage
Sex of respondents		
Males	2	40.0
Females	3	60.0
Age (in years)		
44	2	40.0
45	1	20.0
49	1	20.0
55	1	20.0
Length of stay in School (in years)		
5	1	20.0
6	1	20.0
8	1	20.0
9	1	20.0
11	1	20.0
Educational attainment		
First Degree	2	40.0
Post graduate	3	60.0

Source: Field work data (2020).

4.2 Perception of sanitation and hygiene

Three main organising themes were discernible under definition of sanitation. They include: environmental cleanliness, environment and body cleanliness and protecting health. With reference to hygiene the following themes emerged: body cleanliness, promoting health and body/environmental cleanliness.

Regarding environmental cleanliness, two respondents stated that sanitation basically means ensuring that one's environment is clean [N=5]. One of the males further distinguished between physical and environmental sanitation. It was explained that

the former entails solid and liquid waste disposal while the latter focuses on issues such as noise pollution.

Respondent 4: “Sanitation is making sure the environment is kept clean”

Respondent 5: “Sanitation is basically keeping your environment clean. That is, sanitation has to do with cleanliness”.

Respondent 3: “Sanitation is basically keeping your environment clean. When you talk of sanitation, you are talking about the physical sanitation and we have the environmental sanitation.

The physical sanitation is where we deal with rubbish or let us say garbage; we deal with solid waste, liquid waste. Then the environmental sanitation we look at more of noise pollution, we look at congestion”

Also, one of the study respondents had the perception that sanitation is not only ensuring environmental cleanliness but also keeping one’s body clean to prevent diseases (environmental and body cleanliness).

Respondent 1: “Sanitation is making sure that the environment is hygienic, not only the environment but the human body itself is also well cleaned to avoid diseases that may come out of an unhygienic place”.

Another respondent explained that sanitation is the policy and practice of protecting health through hygienic measures.

According to the respondent in general “Sanitation is the policy and practice of protecting health through hygienic measures” Hygiene on the other hand was defined by the majority of the respondents as an act or practice of keeping the

human body clean to prevent diseases (N=4). Again, it was indicated by other respondent that sanitation is the act of making sure that the human body is well cleaned to avoid diseases that may come out of an unhygienic place or practice”

Respondent 2: “Hygiene is the conditions and practices that promote and preserve health. That is, the act of keeping the human body clean to avoid coming into contact with diseases”

Respondent 3: “Hygiene as in relation to sanitation, is keeping yourself, this time it is more physical, about keeping your body clean away from dirt and any unwelcome material”. However, one respondent perceived that hygiene goes beyond keeping the human body clean. It includes environmental cleanliness.

Respondent 4: “Hygiene refers to the cleanliness of body and environment”. Some respondents (N=2) also stated that hygiene an activity or practice an individual does to promote health. It involves activities such as washing of hands, regular house cleaning and coughing into one’s elbow/ handkerchief.

Respondent 1: Whiles other respondents are of the view that sanitation is any practice or activity that you do to keep things healthy and clean. Washing hands, coughing into your elbow and regular house cleaning are all part of good hygiene” Others indicated that “Hygiene is cleanliness. It can be referred to as the condition and practices that promote and preserve health”.

4.3 Sanitation and hygiene condition in the study area

This organizing theme comprise eight basic themes, namely: clean bungalows, proper disposal of refuse, clean dining hall, average dormitories, availability of veronica buckets, improved toilet facility, poor washroom/toilet facilities, and overall sanitation and hygiene condition.

Generally, the respondents rated the sanitation and hygiene condition in the school from an average score of 5 to 8. This implies that the sanitation and hygiene conditions of the school are better. However, as highlighted by some respondents, there is still room for improvement.

Respondent 1: A rating of 8 out of 10 for sanitation and hygiene in schools is a good score. It means that the school has a high level of cleanliness and hygiene practices. However, there is still room for improvement as there are some areas that need attention. For example, there may be some areas that are not cleaned regularly or some students may not be following proper hygiene practices. Overall, it is a good score but there is still work to be done to ensure that the school is as clean and hygienic as possible.

Respondent 2: “The sanitation and hygiene condition of the school is a very standard one. Therefore, on the scale of 10, I will give 7 (there is room for improvement)”.

Respondent 3: “On a scale of 10, sanitation and hygiene in the school, I will give it 6”.

Regarding sanitation and hygiene condition in the school, all the respondents indicated that the staff bungalow (headmistress’s bungalow) is okay.

Respondent 2: “I know of only the headmistress’ bungalow and to the best of my knowledge, sanitation and hygiene condition at this bungalow is very good”.

Respondent 3: “We do not have many teachers’ bungalows. We only have the headmistress’ bungalow and that of the senior house mistress.

I think that the sanitation and hygienic conditions at these bungalows are okay in terms of environmental cleanliness”

Respondent 1: “If you talk about the outside or the surrounding environment of these bungalows, so far as the students are on their toes, that one, sanitation is seen to be okay but the inner parts of the bungalows, I do not have access to that so I cannot describe how the inside of the bungalows look like”.

With reference to proper disposal of refuse, some respondents [n=5] stated that there are dustbins at vantage points of the school compound for collection of refuse. Also, the refuses are disposed off, when the dustbins are half-full. Refuse disposal in the school was therefore rated above average.

Respondent 2: “The condition of sanitation and hygiene in the school is not too bad. It is rather encouraging because when it comes to disposal of refuse, there are dustbins at vantage points for students to drop any kind of rubbish”

Respondent 3: “For refuse disposal, I will say that it is above average, it is quite okay”

Respondent 1: “Disposal of refuse, we make sure refuse is disposed off the moment the dustbins are half-full; we make sure it is gone”

Also, all the respondents expressed that the dining hall is always clean [n=5]. The condition was thus rated above average in terms of sanitation and hygiene. They explained that teachers and prefects ensure that the hall is clean for use. However, one respondent stated that there is still more room for improvement.

Respondent 1: “When it comes to the dining hall, it is exposed to everybody; teachers pass there very often so it is not dirty most of the time. We make sure that it is clean all the time”

Respondent 2: “The sanitation and hygiene condition in the dining hall is not so bad. Teachers on duty and prefects always make sure the place is cleaned after use”.

Respondent 3: “The sanitation and hygiene conditions in the dining hall are also above average but we still need to improve the condition”.

In addition, some respondents [n=2] reported that the sanitation and hygiene condition of the school’s dormitories is on the average when rated. Daily, students clean the toilet and urinal facilities in the various dormitories to make it clean for use.

Respondent 2: “The sanitation and hygiene conditions in the various dormitories are above average. Students clean the various toilet facilities in the various dormitories every day, thus making it hygienic and conducive for use”

Respondent 5: “The sanitation and hygiene conditions of the students’ dormitories and dining hall is average”

Moreover, one of the respondents stated that veronica buckets have been place at vantage points on the school compound to ensure hand-washing.

Respondent 2: “Veronica buckets are placed at vantage points for the washing of hands”

Regarding improved toilet facility, a respondent indicated that the toilet system of the school has been improved. That is, water closet has been built for use.

Respondent 1: “The toilet system has also improved. Water closets have been built”

Although some respondents reported that there has been an improvement in the school’s toilet system, three of them expressed that the toilet and urinal facilities are not up to standard and that there is a need to improve its current condition. Specifically, they stated that the toilet and urinals are usually not clean and hygienic and this is because they are inadequate compared to the population of the students.

Respondent 2: “The problem I have is the toilet and urinal facilities. Students urinal is usually not clean and hygienic because it is small for the whole student populace”.

Respondent 3: “When it comes to the washroom and toilet facilities, I think it is not up to standard. We still need to work to improve the existing conditions”.

Importantly, another respondent highlighted that there are no toilet facilities for students on campus and that they have to go to the dormitories to ease themselves when the need arises.

Respondent 2: “Again, there are no toilet facilities for students on campus. Students have to go to the various dormitories before they can ease themselves”.

4.4 Availability of policy

When the respondents were asked whether or not the school has a sanitation policy, four of them responded “yes”- that is, there is a policy in that regard.

Respondent 1: “I will say yes, that is to say, we made it a policy that, anytime you see a student around and a particular place is littered, you have to prompt the student to clean it or pick up before it gets out of hand” (Respondent 1).

Respondent 4: “Yes”

One of the respondents who responded in the affirmative indicated that it has been in place but was strengthened 3 years ago.

Respondent 1: “It was there but it was strengthened three (3) years ago.

The respondents pointed out that the core element of the policy is ensuring environmental cleanliness and good hygienic conditions [n=2]. They emphasized that students have been directed or tasked to pick around anytime a particular place is dirty or littered.

Interviewer: What are the elements of the sanitation and hygiene policy in the school?

Respondent 1: By making sure that students pick around anytime a particular place is dirty or littered.

Respondent 3: Keeping of the environment clean and making sure that hygiene conditions are well for students and teachers”.

On the other hand, some of the respondents [N=3] reported that the school has not developed a policy on sanitation and hygiene per se. However, it has implemented the

general Ghana Education Service rule on sanitation and therefore the authorities of the school ensure proper sanitation and hygiene practices.

Respondent 3: “As I described earlier on, we apply the general GES rule in terms of sanitation but as to the school’s specific policy on sanitation, I haven’t seen one. I think maybe we can think of developing one”.

Respondent 2: “Not that I am aware of but to the best of my knowledge, management and teachers and prefects make sure sanitation and hygiene conditions in the school are conducive for use”.

4.5 Role of head teacher in the implementation of sanitation and hygiene policies

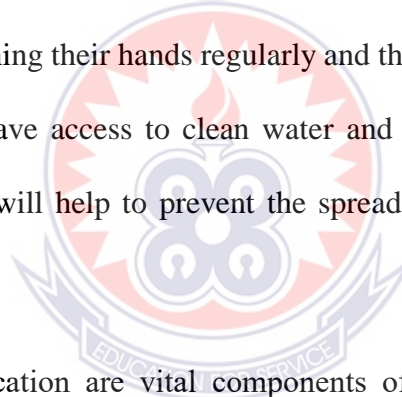
At a focus group discussion at Larney senior high and technical school the head master gave her response on the issue of accessibility as follows;

“The toilet is too far from the school compound so any passer-by can harass anyone if the person is alone. So sometimes when students are going to toilet, I have asked them to ask their friends to accompany them mostly during break time, and if lessons are going on any of their friends can also accompany them. Also, part of the toilet has cracked from the top to down but it has not fallen off so due to this most of the pupils prefer going to toilet in the bush than in that toilet facility.

A student reported to my office said “We also do not have enough water in school to clean ourselves and change our sanitary pads and wash our hands as well. The water containers are not many and aside that we draw water from the community borehole which is far from the school. We at times run home before closing and do not return until the next day. Having access to personal hygiene lessons is also absent in the

classroom. It is only done at assemble ground. We need more education on health issues”.

The Ghana Demographic and Health Survey (GDHS) is a nationally representative survey conducted in Ghana. The survey collects information on fertility, family planning, maternal and child health, nutrition, HIV/AIDS, malaria, and other health-related topics. The GDHS is conducted every five years and is used to inform policy decisions and programs related to health in Ghana. According to the survey, more than half of Ghanaian households have a designated place for washing hands. However, only about one household out of every five has water or other cleansing agents available at home. As a headmaster, I want to ensure that students are aware of the importance of washing their hands regularly and thoroughly. It is also important to ensure that students have access to clean water and soap or other cleansing agents while at school. This will help to prevent the spread of diseases and promote good health among students.



Good health and education are vital components of a child’s early development. Sadly, most children in Presbyterian Senior High and Technical School, Larteh in the Eastern Region will be affected by diarrhoea in some way, often leading to adverse impacts on their physical and mental development. Unhygienic water, poor sanitation management, and an insufficient supply of water for hygiene management are the leading causes of diarrhoea.

Good health and education are vital components of a child’s early development. Sadly, most children in our school will be affected by diarrhoea in some way, often leading to adverse impacts on their physical and mental development. Unhygienic water, poor sanitation management, and an insufficient supply of water for hygiene

management are the leading causes of diarrhoea (WHO, 2008). Diarrhoea claims the lives of 1.5 million people worldwide each year, the majority being children.

We have taken steps to address this issue by providing clean drinking water and improving sanitation facilities. We have also educated our students on proper hygiene practices to prevent the spread of diarrhoea.

Because it helps children live long, healthy lives and stops the spread of infectious diseases, hygiene education is crucial in schools. Environments that are clean and hygienic promote wellbeing and have a positive effect on attitudes, performance, attendance, teacher retention, and test scores as a whole. Overall school attendance is influenced by school hygiene, and students and staff who are exposed to a clean, hygienic environment will be more motivated to learn. Improved student health and wellbeing, higher attendance rates, parental peace of mind, and more motivated students and teachers are all advantages of hand hygiene in schools.

The Ghana Education Service has a policy on health, hygiene, and sanitation that staff and students should adhere to and comply with. The school should maintain existing health, hygiene, and sanitation facilities, ensure their accessibility by staff and students, and ensure the availability of cleaning materials to maintain hygiene and sanitation. The school should monitor and control sanitation and hygiene in the school. However, respondents indicated that easy access to all these facilities is not adequate, so they try to improvise

4.6 Policy implementation challenges

With reference to challenges associated with the implementation of the sanitation and hygiene policy in the school, the following were reported by the respondents:

Respondent 4: “The main challenge for the policy implementation is the lack of facilities to aid in implementation”. **Respondent 2:** “The dustbins usually get damaged due to the manner in which students carry it”

Respondent 1: “With this, I was talking about dustbins some time ago. The dustbins are a challenge because we do not have enough dustbins”

Respondent 2: There are few challenges students encounter: Availability of water to flush the human excreta at the toilet.

There are challenges. Sometimes some of the teachers overlook the littered places. It will take another teacher to prompt the nearest student to pick around so I will say it is not every teacher that contributes to that effect.

Students and school staff reported that the number of toilets was insufficient and that their conditions were often inadequate because they were plugged or dirty. The impact on girls is greater as toilets do not offer a clean and healthy environment for menstrual hygiene management several elements of the normative content of the human rights to water and sanitation

4.7 Effective ways of implementing the policy

When respondents were asked to suggest ways to aid in the effective implementation of the school’s sanitation and hygiene policy, 7 responses were given. These include the following: provision of needed facilities/resources [n=4], Awareness creation on sanitation [n=3], collective responsibilities [n=2] punishment of defaulter [n=2]; periodic meeting/ reminder [1]; encouraging teachers [n=1] and monitoring/inspection [n=1].

With reference to provision of needed facilities, some respondents suggested that the provision of needed facilities and resources including dustbins and boreholes will help address the challenges.

Respondent 1: “Firstly, we need more dustbins”

Respondent 2: “By providing enough bore-hole water and more efficient movable bins”.

Also, creation/raising of awareness on sanitation and hygiene issues was suggested by the respondents as a means to achieve an effective implementation of the sanitation policy. They explained that awareness can be created or raised by pasting posters on sanitation in and around the school, educating and orientating students, particularly first years on sanitation and hygiene issues.

Respondent 2: “Paste around posters to raise awareness.

Respondent 5: “Education on sanitation and hygiene must be enforced. It can only be addressed by the policy makers since they control the schools and also give grants for its maintenance”.

Respondent 4: “Introduce it to student from form one during their orientation. Thus, from their early stages in school and adding the sanctions as well”

Besides, the respondents stated that having a collective responsibility; that is, involving the entire population of the school as well as community members is a key factor in an effective implementation of sanitation and hygiene policy in the school.

Respondent 3: “I think that we have to involve the general populace of the school, i.e. the students, workers, both teaching and non-teaching and the management. All of us would have to contribute to the developing of the

policy. Which will also mean we are stakeholders in the development of the policy and each one of use will be responsible in ensuring that the policy is carried out?”

In addition, two of the respondents suggested that having periodic meetings with stakeholders or constantly reminding them of the task at hand would be helpful in implementing the policy effectively.

Respondent 1: “By constant reminder among staff members so that we all can make sure the work is done”

Respondent 5: “Regular stake holders meeting”

Furthermore, a respondent suggested that teachers should be encouraged or motivated to play active roles in the sanitation issues of the school.

Respondent 1: “Secondly, there is the need to encourage the teachers to play active roles in the sanitation issues in the school”

With reference to monitoring or inspection, a respondent suggested that both internal and external inspectors, policy makers were another factor which was highlighted to embark upon to effectively implement the sanitation policy. This is to be done by both internal and external inspectors.

Respondent 2; “More inspection by both interior and exterior inspectors (taskforce) should be encouraged. Finally, a respondent reported that defaulters of the policy should be punished.

Respondent 2:“Penalties or punishment should be administered to defaulting people”

4.8 Discussion

The aim of this study is to investigate implementation challenges that have compromised sanitation and hygiene practices in Larteth SHTS. Firstly, the respondents shared their understanding on the concept of sanitation and hygiene. Basically, the respondents explained that sanitation is ensuring that one's environment and body is clean to prevent diseases. Hygiene on the other hand was described as the practice of keeping the body clean. These ideologies align with the definition provided by UNICEF in 1997- Sanitation refers to a process whereby people demand, effect, and sustain a hygienic and healthy environment for themselves by erecting barriers to prevent the transmission of disease agents (UNICEF, 1997).

With regard to sanitation and hygiene conditions in the study area, generally the respondents rated the condition as better. The above findings corroborate with Tiswin et al's study (2019) in 25 primary schools in Zabzugu district of Ghana which reported that the condition of water was good and satisfactory in 36% and 48% of the schools respectively. Also, sanitation condition was good and satisfactory in 28% and 42% of schools respectively. However, while some respondents indicated that there is proper disposal of refuse, improved toilet facilities and cleanliness of facilities such as staff bungalows, dining hall, dormitories, others reported the absence of toilet facilities on campus and poor sanitation conditions of available washrooms. The respondents therefore called for an improvement in the sanitation and hygiene condition of the school. The lack of toilet facilities and low standard of available washrooms is consistent with Gyabaah et al's study in the Tano District of Ghana. The authors found that more than half (53%) of the schools (n=30) had no toilet facilities and 83% had no safe water on site, can be linked to inadequate spending on sanitation. According to The United Nations (2012) although funds are needed to

provide required facilities and items including functional toilets, bins, portable water, less funds are allocated due to lack of political will. This therefore limits health effectiveness.

Another finding is that the school has a policy on sanitation and hygiene in the school. The core element of the policy is to ensure that students pick around anytime a particular place is littered. Although the policy has been in existence for a longer period it was strengthened three years ago.

The focus of the policy and the seriousness attached to its implementation partly explains why the sanitation condition of the school is not up to standard. That is, the policy hinges mainly on picking refuse (Solid waste disposal) to the neglect of other elements of sanitation. For instance, the school Health Education Program (SHEP) policy and framework developed by the Ghana Education Service in 2010 comprises of disease control and prevention, skill-based health education, food safety and nutrition and education and a safe and healthy school environment. This suggests that the school's policy framework should be reconsidered or revised.

In addition, the findings showed that there are some challenges that impede the implementation of the sanitation and hygiene policy. Among these challenges include lack of facilities, inadequate dustbins, damaged dustbins and lack of teachers' commitment. The challenge of commitment on the part of teachers to enforce the policy is consistent with that of the United Nations (2012) which reported that some agencies, actors and individuals who have been mandated to implement sanitation and hygiene policies lack the commitment to do that. This happens because they are not capable of fulfilling the task given to them.

It seems that the implementation of sanitation and hygiene policies is facing some challenges. According to the World Health Organization (WHO), poor sanitation reduces human well-being, social and economic development due to impacts such as anxiety, risk of sexual assault, and lost opportunities for education and work¹.

In addition, the United Nations (UN) has reported that some agencies, actors and individuals who have been mandated to implement sanitation and hygiene policies lack the commitment to do that. This happens because they are not capable of fulfilling the task given to them.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The study is to examine the role of head teachers in the implementation of hygiene and sanitation policies in the Presbyterian Senior High School. The study aimed to assess the knowledge and practices of head teachers in the implementation of hygiene and sanitation policies in the school the present chapter focuses on a summary of the study as well as the major finding. In addition, the conclusions drawn from the analysis are presented in this chapter. The chapter ends with recommendations that are based on the findings of the study.

It is a known fact that School Sanitation and Hygiene Education is an important area within the school environment. As such this study sought to examine the role of head teachers in the implementation of the sanitation and hygiene policies in a senior high school, specifically the Presbyterian Senior High and Technical School, Larteh. In carrying out this general objective, the study had four guiding specific research objectives. These are objective are to investigate the sanitation and hygiene conditions in Larteh SHTS, to find out the role of head teachers in the implementation of sanitation and hygiene policies in Larteh SHTS, to investigate the policy implementation challenges that have compromised sanitation practices in SHS and finally to explore effective ways of implementing the sanitation and hygiene policy in order to ensure better hygiene and sanitation conditions in Larteh, SHTS. The study adopted the qualitative research methods as this study was mainly exploratory. As a qualitative study, the non-probability sampling method was employed. Specifically, the purposive sampling method was used to select respondents. This study sought to

gather information by interviewing head teachers of the school. The interviews were tape-recorded and transcribed later. The transcripts were uploaded into the ATLAS to software and with the help of the software relevant themes were drawn. These themes were then analysed and discussed.

5.2 Summary of key findings

The main findings of the study are discussed in relation with the objectives of the study.

5.2.1 Objective 1: Investigating the sanitation and hygiene conditions in Larteh

SHTS

With regard to the first objective of this study that has to do with the sanitation and hygiene conditions, a number of findings were evident. These findings include clean bungalows, proper disposal of refuse, clean dining hall, average dormitories, availability of veronica buckets and poor washroom/toilet facilities. It was evident that regarding the few bungalows in the school the sanitation and hygiene conditions are good. This may be due to the fact that the bungalows belonged to the headmistress and the school chaplain. The students of the school will do their very best to make sure sanitation and hygiene in the compound of these bungalows are the best. However, the same cannot be said of the very dormitories of the students. While the students give utmost importance to the sanitation and hygiene of the bungalows of staff, they do not give that same importance to the dormitories in which they live in. It is therefore not surprising that the respondents of the study indicated that the sanitation and hygiene conditions of the dormitories can be described as average and not the best as in the case of the headmistress and chaplain of the school. There is the availability of veronica buckets with soap and tissue at vantage points of the school.

These hand washing stations are available at the entrance of the school, administration, and every classroom block. The staff room is also equipped with veronica bucket, water, soap and tissue. Unfortunately, the toilet facilities were described by the respondents as poor. This may be due to high student to toilet ratio.

5.2.2 Objective 2: Finding out the role of head teachers in the implementation of sanitation and hygiene policies in Larteh SHTS

The head teacher plays a vital role in improving and sustaining health, hygiene and sanitation in the school. This is done by bringing together and engaging teachers and other staff, students, parents and other stakeholders by;

Adherence and compliance to the policy of the Ghana Education Service on health, hygiene and sanitation. Hygiene and sanitation is vital to our growth and development hence, forms a part of our educational system. In order to make the policy a reality, the headteacher engages all stakeholders including students and staff to work together to improve the sanitation and hygiene situation in the school.

Ensuring maintenance of existing health, hygiene and sanitation facilities. Since the hygiene and sanitation facilities are inadequate as stated by some respondents compared with students' population, it is vital to make judicious use of the few facilities available. This will ensure that the facilities are readily available to students and staff.

Ensuring accessibility to health, hygiene and sanitation facilities by staff and students.

It was identified that, most of the hygiene and sanitation facilities in the school are user friendly which can be accessed by all kind of persons. However, there is a small washroom in the school compound which is accessed by only teachers and visitors. Students would have to go the dormitory to attend to nature call when the need arises.

With this, the head teacher affirmed that stakeholders have been contacted to salvage the situation.

Ensuring availability of cleaning materials to maintain hygiene and sanitation. In order to maintain high standard of hygiene and sanitation in the school, cleaning materials are always procured by the supply officer on the order of the head teacher to aid with cleanliness of the facilities. However, due to the students' population with respect to facilities available, it was ascertained that some of the facilities had to be improvised.

Monitoring and controlling sanitation and hygiene in the school. It was identified that the head teacher has delegated power to the senior house staffs through the Assistant head teacher in charge of domestic to monitor and control sanitation and hygiene in the school. The power continues to other house staffs and some prefects who work directly with the students to ensure high standard of hygiene and sanitation in the school is maintained.

5.2.3 Objective 3: Investigating the policy implementation challenges that have compromised sanitation practices in Larteh SHTS

Regarding the challenges that hinder the implementation of the sanitation and hygiene policies, a number of issues were raised by respondents. These issues include lack of facilities, damaged dustbins; inadequate dustbins; unavailability of water; and lack of teachers' commitment. Respondents indicated that the school lacked things like dustbins. Thus, the dustbins in the school were described as not enough to ensure high sanitation and hygienic standards. The few that were available were not in good shape. Some had been damaged. Another challenge is the lack of water in the toilet facilities. Students and teachers alike do not have ready water to flush the toilet. In such circumstances students do fetch water for teachers to use. However, there are

sometimes that the water for flushing will be finished. In such circumstances students and teachers use the toilets without flushing making it very uncomfortable for the next person to use the toilet facilities. However, the most serious challenge has to do with the lack of commitment on the part of teachers to ensure that sanitation and hygiene conditions are excellent all the time. It was reported that some teachers do not instruct students to pick up refuse on the compound when it is dirty.

5.2.4 Objective 4: Exploring effective ways of implementing the sanitation and hygiene policy

A number of suggestions were offered by the respondents with respect to effective ways of implementing the sanitation and hygiene policies. These included the provision of needed facilities/resources, awareness creation on sanitation, collective responsibilities, punishment of defaulter; periodic meeting/ reminder; encouraging teachers and monitoring/inspection. Respondents were of the view that if resources such as dustbins and more importantly more boreholes were to be made available, then sanitation and hygienic conditions of the school will greatly improve. This is because the lack of these two resources is the main bane to the sanitation and hygiene situation in the school. Aside the dustbins and water, some respondents indicated that there should be the creation of the awareness of sanitation for all to see and appreciate its importance. Furthermore, it was suggested that the staff of the school should see the sanitation and hygiene condition as a collective responsibility. This is because, as mentioned earlier on, some teachers do not instruct students to keep the school compound tidy. A similar suggestion was the motivation of teachers to be involved in the sanitation and hygiene condition of the school. It appears that most teachers are preoccupied with the need to just teach their students. However, motivating them to help with sanitation will go a long way to help the school. There were other

respondents who suggested that there should be punishment for those who keep the compound of the school untidy.

5.3 Conclusions

This study was conducted to examine the effects of head teacher leadership in the implementation of sanitation and hygiene services education in Larrey presby senior high school in the Akwapim North Municipality in the Eastern region of Ghana. It was in an attempt to find out how students practice sanitation. According to WHO (2000), a health promoting school is “one that is constantly strengthening its capacity as a healthy setting for living, learning and working”. Improving the health of school children is thus a significant factor for achieving educational outcome.

Though the results of this study could not be generalized, it was possible to draw the conclusion that the Akwapim North Municipality, School Sanitation and Hygiene Education (SSHE) did not have any significant impact on the students in the area since most of the students could not practice proper sanitation due to lack of appropriate sanitation facilities. If such conditions continue to prevail, the provision of total and holistic hygiene education for students in the study area and in Ghana as a whole, will not achieve the desired impact. This conclusion is particularly true for schools in rural and deprived school where provision of basic amenities are usually lacking. This could be a possible reason why many incurable illness or diseases prevail and even take alarming turns in some rural communities, most of which are attributed to the wrath of deities and gods.

Equally important is the fact that continuing general decline in school sanitation and hygiene education could results in poor school attendance and possible drop-out rate

among female students. This is because most female students have to usually stay out of school for between 4 to 7 days each month during their menstruation due to unhygienic or lack of gender friendly toilet facilities. This situation puts the girl-child at a disadvantage position academically as she has to do extra work to catch up with her peers due to lost contact hours, she experienced due to their natural disposition of being females. Many girls who are not able to manage this extra burden of learning harder and spending more time with their books in order to catch up with peers, do not often do well in school and even drop out of school.

This study has brought to light some interesting findings. The first one has to do with the attitude of students towards the sanitation and hygiene of the facilities they use as against that of the staff of the school. The students put in extra effort to ensure the hygiene of the highest standards when it comes to cleaning the bungalows of staff of the school. However, with their own dormitories, they are not able to keep their dormitories well. A number of reasons can explain this interesting phenomenon. One possible explanation is the fear of being punished for not cleaning the bungalows well. Thus, the fear of punishment pushes them to give off their best. Another possible explanation may be the fact that the number of students inhabiting the dormitories is many and so the facilities in the dormitories are stretched. This teeming numbers of students at the dormitories is further compounded by the lack of water in the dormitories. Students have to leave their dormitories to fetch water. These are the possible reasons that can explain why the bungalows of staff are of the highest hygiene standards but the dormitories of the student are of average standard.

Another interesting finding has to do with the fact that some teachers are not committed to ensuring that the sanitation and hygiene of the school is of the highest

standards. As indicated by some respondents, some teachers are not concerned about the sanitation of the school. This is because even when they see some students litter around, they do not call them to pick up what the students drop. One would have expected that all teachers will be on guard to direct and ensure that students keep their surroundings clean. It is for this reason why a respondent even suggested that teachers should be motivated so that they will enforce the rules of sanitation and hygiene in the school.

Furthermore, there were some teachers who indicated that they had no knowledge of any sanitation and hygiene policies. This indicates that some teachers are not aware of the SHEP. One would have expected that teachers would be aware of this policy. The ignorance of some teachers of the SHEP explains why they are not motivated to ensure proper sanitation and hygiene in the school.

Conclusively, this study has revealed that to ensure the highest standards of sanitation and hygiene in a senior high school, all the relevant stakeholders should play their roles. The students alone cannot ensure that proper sanitation and hygiene is maintained every day. Management of the school cannot do it alone. Teachers of the school cannot do it alone. It will take the effort of management, teachers, students as well as supervisors to ensure that sanitation and hygiene are of the highest quality in secondary schools.

5.4 Recommendations

Based on the findings of the study as well as the suggestions by the respondents a number of recommendations have been made. These include:

1. One resource that will enhance the sanitation and hygiene of the school is the provision of water in the dormitories of the student as well as in the toilet

facilities of both teachers and students. As indicated earlier, one of the reasons why the sanitation at the dormitories is average is as a result of the lack of water in the dormitories. The provision of water in the dormitories will improve the sanitation of the dormitories tremendously. Also, it was indicated by the respondents that the sanitation of the toilet facilities is average. This is mainly because sometimes there is no water to flush the toilet. It is therefore clear that the provision of water in the dormitories will help greatly.

2. There should be the creation of the awareness of the SHEP. It appears that some teachers are not aware of the SHEP. This explained why some were not committed to ensuring sanitation on the compound of the school. There should be campaigns by the GES to make teachers aware of the SHEP. This will go a long way to ensure sanitation and hygiene conditions are of high standards in secondary schools.
3. This study also recommends that the resources such as dustbins be provided. It was indicated by the respondents that the dustbins in the school were not enough and that some of the few that were available were damaged or had defects. This situation hampers the collection and transportation of refuse from one place to the other. The provision of dustbins will therefore make it easy for dustbins to move from one place to the other.
4. Furthermore, to ensure that schools maintain proper standards of sanitation and hygiene, it is imperative for district supervisors to monitor schools periodically. This will put management, teachers and students of schools on their toes with respect to maintenance of good sanitation and hygiene in their schools.

5. With respect to further research, this study recommends that apart from head teachers, students and supervisors be used as respondents so as to get their views on issues of sanitation and hygiene in a secondary school.
6. Based on the findings and conclusions drawn from the study, it is recommended that the government, School Management Committees (S M C), Parents Teachers Associations (P T A) school health committees and all stakeholders in education should ensure that proper and adequate toilet and urinal facilities which will enable students live under hygiene condition in schools are provided.
7. Again, the government, in collaboration with the Ghana Education Service should organize workshops for school-based health coordinators and also empower them with skills that will enable them handle issues related to hygiene and sanitation with confidence in basic schools. Also, the government should task the municipal and district assemblies as well as local governments to either encourage individual households in the community to acquire their own toilet facilities in their homes or provide toilet and urinal facilities for the community and also educate them to desist from using facilities of schools.

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APPENDIX

Interview Guide for Individual Interviews with Headteachers in

Larteh SHS

1. Can you please tell me a little about yourself?

Probe: Age, educational background, length of stay in the school, position in the school, your roles and responsibilities

2. Generally, what is your understanding of sanitation?

3. What is your understanding of hygiene?

4. How would you describe the sanitation and hygiene conditions in this school?

Probe: refuse disposal, toilet and urinal facilities, classroom and compound cleaning, general inspection in the school, hygiene practices (hand-washing),

5. *if responses were not given on the student's dormitory and dining hall, ask respondents to describe the sanitation conditions for the student dormitory and dining hall.

6. *if the respondent does not give a response on teachers' bungalows, ask the respondent to describe the sanitation conditions for teachers' bungalows

7. On a scale of 10, how would you rate the sanitation and hygiene conditions of the school (**note:** The higher the scale, the better the condition)

8. Does the school have a policy on sanitation and hygiene?

Probes: a. If yes, when was it developed/promulgated?

b. what are the elements of sanitation and hygiene policy in the school?

c. If no, why there is no policy on sanitation and hygiene?

d. Is there any plan underway to develop a policy on sanitation and hygiene?

9. Are there any challenges associated with the policy implementation? If yes or no, explain
10. How can these challenges be addressed?
11. In what ways can the sanitation and hygiene policy be implemented effectively to ensure better conditions?
12. Do you have any comment(s) regarding this study? Kindly share.

Thank you for your time

