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# Improving Water, Sanitation and Hygiene (Wash) in Rural Secondary Schools with Special Reference to Girl Children at Tsvingwe High School, Manicaland

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#### Abstract:

The study sought to investigate the effects of poor W.A.S.H programmes at Tsvingwe High School, Penhalonga in Manicaland. A sample of 60 pupils was engaged using the stratified random sampling from a population of approximately 600 pupils. Data gathering tools used for the study were questionnaires, interviews and observation guides. Data from the instruments was presented in the form of tables, pie charts and bar graphs. The analysis and interpretation of data was done followed by discussion of results. The study revealed that most pupils at the school had a tendency of throwing litter anywhere in the school compounds. Also classrooms were not being properly cleaned, and some pupils exhibited some unhygienic practices such as coming to school in dirty uniform. From the findings, it was established that lack of proper hygiene education and dwindled water supplies at the schools made it more difficult for the pupils, more so to the girl child. The single water tape at the school supplies water for all purposes such as drinking and washing for both teachers the pupils. It was also noted that most girl children absented themselves from schools during their monthly periods for fear of water shortages at the school. The study recommends that health, and hygiene education be taught to pupils at Tsvingwe High School and other schools around including residents in the surrounding area of Penhalonga. There is need for N.G.O s to fully support W.A.S.H programmes and raise awareness in schools, colleges and communities and provide more water facilities. The school administrators must strive to build more toilets and to provide adequate water supply for pupils to drink and wash.

**Keywords:** Girl-child, healthy education, hygiene, menstrual periods, puberty, W.A.S.H

#### 1. Introduction

In an attempt to improve the health status of pupils as well as their academic achievements, the study explored the effects of poor water, sanitation and hygiene (W.A.S.H) at Tsvingwe High School in Penhalonga, Mutasa district in Manicaland. It also established ways of improving W.A.S.H programmes in the school in order to curb the prevailing state of affairs which was detrimental to the well being of pupils. According to www.newvision.co.vg/new/.../html W.A.S.H is an acronym that stands for water, sanitation and hygiene.

## 2. Background to Study

Tsvingwe High School is a mixed secondary school located in Penhalonga, Mutasa district in Manicaland province. It is about 25 km to the north west of Mutare. It has an enrolment of about 600 pupils who are drawn from the mining communities namely Redwing mine and DTZ Ozegeo. Other pupils come from far as Muchena village, Imbeza estates and from the nearby farming communities. Pupils who come from Muchena and Imbeza estates travel for approximately 10 kilometres everyday to school, hence they come to school tired. As such, they need a lot of water to drink and wash their dirty legs and wipe their shoes, yet the water is a very scarce commodity at the school. A number of factors were identified to be challenges or threats to good WASH and the well being of Tsvingwe High School. These include the issue that:

• Tsvingwe High School experienced frequent water shortages, due to pipe bursts as the pipes were getting old. Another issue was late payment of bills which resulted in Mutasa Rural District Council cutting off supplies in some instances. To add on to that, the school did not have boreholes or tanks to rely on when taped water was out of supply and obviously pupils would not wash their hands after using the latrine, let alone water to drink or to use for the cleaning of toilets and this resulted in many pupils shunning the toilets, especially the boys as they would end up messing or urinating outside the toilets.

- The school did not have tapes dotted around the school for the 600 pupils to have access to clean drinking and washing water. It was established that near the toilets there is no tape for pupils to wash their hands after using the latrine. The only tape available was located near the agricultural garden, where the pupils joined a long queue at breaktime for washing their hands and drinking water. Because of the long queue some pupils ended up not washing their hands at all.
- In classrooms there were no bins, and outside there were limited bins which were a bit distant from pupils classrooms such that pupils threw away litter almost everywhere to the extent that in their own classrooms, one would find litter dotted here and there.
- It was noted that the school rarely provided sanitary towels to the girl child in a minority of emergency cases in case they started menstruating while at school. Most of these young girls were at puberty level, hence some would experience their menstrual periods for the first time, while at school. Some girls would get confused and some would even cry and feel out of place. Failure of the school to come to their aid has been a cause of concern and because of this, the rate of absenteeism and eventually drop outs at school has also been increased. Therefore, this study arose out of a need to address these misdemeanors and to improve the academic and social life as well as confidence and self esteem of pupils, especially girl children.

#### 3. Statement of the Problem

Rod (2002) defines teenage as an age when a person is in his teens, thus life between 13 and 19 years of age. This stage also coincides with the developmental period called adolescence. During adolescence many biological, cognitive, social and personality traits change from childlike to adult like. Rod (2002) also stresses that girls mature earlier than boys of the same age. Girls who mature much faster than their peers or those who go through puberty early maybe shy and introverted. Saucher (1991) points out that puberty is a time when a young person is developing physically into an adult. It is a period of storm and stress characterized by identity crisis and role confusion. Teens at this juncture are very much worried about their looks, what they eat and with whom they socialize. Poor sanitary conditions also disturb the social, psychological and emotional wellbeing of these adolescents. Therefore the particular focus of this study was to explore the effects of poor W.A.S.H programmes at Tsvingwe High School, to establish ways and strategies for improving these programmes for the adolescent especially the girl child. This was done through investigating current hygienic practices of form one and two boys and girls and it led to deciding ways of improving hygiene and sanitation for a more healthy school and community.

#### 4. Objectives/ Aims

It was the objective of this research to achieve the following:

- a) Establish the effects of poor W.A.S.H programs in the school.
- b) Sensitize school administrators, teachers and pupils on the benefits of good WASH and its proper implementation.
- c) Create awareness in pupils on the need to be responsible and to keep their environment clean.

# 5. Key Terms Used in the Study

- Girl-child
- Healthy Education
- Hygiene
- Menstrual periods
- Puberty
- W.A.S.H

# 6. Conceptual Framework

In trying to elaborate the best strategies to alleviate poor wash in schools, various scholars' work has been reviewed. The issues herein include what WASH is, benefits of good WASH in schools, effects of poor WASH, girls and menstrual management issues as well as an intergrated approach for WASH in schools are also addressed herein.

#### 6.1. What is W.A.S.H?

According to www.newvision.co.vg/new/.../html W.A.S.H is an acronym that stands for water, sanitation and hygiene. It is an innovative new "United Nations Development Program", a program that aims to accelerate achievement of the Water and Sanitation Millennium Development Goal through strategically targeted interventions that strengthen governance of the water and sanitation sectors at appropriate levels. W.A.S.H aims to improve service delivery through addressing access to safe, sufficient and reliable drinking water supply, access to improved sanitation and sustained positive change in behaviour. Sanitation is any arrangement for drainage disposal of sewage. Kanyemba (2011) sharing the same sentiments with Lankester (2002) confirm that W.A.S.H programmes were established in order to improve water by providing clean water sources for drinking and washing, as well as provide proper sanitation and good hygiene practices. Good habits will lead to good health. Junior secondary schools enroll most pupils who are just entering into adolescence, hence they need good grooming because this is the time they experience body changes, and they can sweat a lot, produce bad odours, start menstrual periods, among many others changes. Schools need to provide clean and sufficient water for drinking and washing, enough toilets and a clean environment for these youngsters.

If proper sanitation and water resources lack pupils tend to abscond schooling especially girls when they are having menstrual periods and diarrheal diseases. W.A.S.H programmes are an integral part of promoting health in the schools, urban areas and rural areas and even in the home. It influences social activities in general. Lankester (2002) stresses that water should come from a clean supply. Every community needs clean water for drinking and washing. Many diseases are caused through drinking unclean water or eating contaminated food by dirty water. Saucher (1991) states that clean water and sanitary sewage can obviate infectious diseases and improve health generally.

# 6.2. Benefits of W.A.S.H in Schools

Investing in school sanitation and hygiene education has many benefits; it is in essence an investment in the future. According to www.amshaafrica.org/.../ the provision of safe water and sanitation facilities in schools is the first step towards a healthy physical learning environment benefiting both learning and health. It is the use of latrines and related appropriate behaviour of people that provides health benefits, as poor use would result in others no longer feeling comfortable to use the defiled latrines and also infectious diseases will not take long to creep in.

In schools hygiene education should aim to promote those practices that will help prevent water and sanitation related diseases as well as encouraging healthy behaviour in the future generation of adults. Stewart (1985) sharing the same view states that there must be adequate sanitation, water and food, adequate disease control and adequate and optimal social services to achieve health. Begum (1999) has defined health as the state of complete mental, physical, social well being in an individual. It promotes effective learning. Children perform better when they function in a hygienic and clean environment. In other words, there is a strong relationship between the cognitive environment and the physical environment. When the mind of the youngster is relaxed, they are ready to accept new ideas.

Another benefit of good WASH is its ability to increase enrolment of pupils, especially the girl child. The lack of private, sanitary facilities for girls can discourage parents from sending girls to school and contributes to the dropout of girls particularly during puberty. When facilities are readily available, attendance is boosted, achievement is higher. It will improve the attendance and performance of girl children at school since they will be provided with health education, clean water, sanitary towels, clean toilets which offer privacy.

When good WASH is available, there is a marked reduction in incidents of diseases and worm infections. This is confirmed by Lankester (2002) who states that when pupils are aware of good W.A.S.H programmes the community tends to experience less waterborne diseases because what the pupils learn at school is also practiced at home. The community will also imitate the hygienic practices practiced by their children at home, which they would have leant at school. On the other hand, if school sanitation and hygiene facilities are absent or badly maintained and used, schools become a healthy hazard. The presence and proper use of facilities will prevent pollution of the environment and limit health hazards for the community at large. In other words, it promotes environmental cleanliness.

Among the consumer rights, are the right to education and the right to good health. As such, good WASH seeks to respect children's rights so that these young ones are as healthy and happy as possible. Learning becomes more fruitful in such an environment. In other words, as put in by Stewart (1985), being clean, healthy and having clean water and proper sanitation facilities contribute to the implementation of children's rights and a happy childhood. It encourages behavior change in schools and the community at large. What the pupils learnt at school is also practiced at home, (Saucher, 1991). Gender equality is promoted, as both boys and girls are afforded equal opportunities. In a school set up, if toilets are to be constructed, will be tailor-made to suit the girls while others will be specifically for boys, e.g. the provision of a urinary.

# 6.3. Challenges of Poor W.A.S.H.

Whether it is a rural or urban set up, in as much as any individual would want to dwell in very clean and neat surroundings, there are times when this is a challenge. This is because various factors are at interplay. The child may be exposed to health hazards because of where s/he spends the day, e.g. at school where there is poor WASH. At home, there may be burst sewer pipes compromising the health of the young one. This is confirmed by Mukangara and Koda (2007) when they state that hygiene and environmental sanitation problems are felt in both rural and urban areas. Most populations live in unplanned waste disposal systems. Central sewage systems or septic tanks and cesspits are overflowing due to lack of rehabilitation. In rural areas disposal of waste material including excrement is a big problem. This creates serious health problems for both genders but more so for women. The filthy environment causes diseases. The majority of Mozambican population in rural areas drinks water from public wells, rivers and lakes. Less than a third of the rural population has access to latrines or toilets, (Mukangara and Koda, 2007). The consumption of untreated water and the absence of latrines for use can cause infectious diseases. Site www.unicef.org/.../CFS-WASH-E-web acknowledges that under W.A.S.H programes, Unicef has intensified measures to mitigate and avert the rapid spread of cholera and other waterborne diseases in Harare. In 2007, according to the Unicefs' report more than half of the population have no access to improved sanitation facilities while more than a quarter of the Zimbabwean population had access to sanitation facilities. Thus a large proportion of the population still uses unsafe water sources. This has led to an outbreak of cholera especially in the high densities where people are overcrowded. The report from Unicef goes on to say that inadequate access to safe water and sanitation services coupled with poor hygiene practices, kills and sickens thousands of children every day and leads to impoverishment and diminished opportunities for thousands more. Children, particularly girls are denied their right to education because their schools lack private and decent sanitation facilities.

Women are forced to spend large parts of their time fetching water. Poor farmers may-be less productive due to their illnesses, health systems are overwhelmed and national economies suffer. Without proper W.A.S.H sustainable development is totally impossible

#### 6.4. Girls at school and Menstruation Management

Kanyemba (2011) stresses that adolescence is the time during which boys and girls grow from childhood to adulthood and changes take place in their bodies. This is a period of storm and stresses which according to various Psychologists, is characterised by identity crisis and role confusion. During this period known as puberty, menstruation starts in girls. Rod (2002), states that early maturing girls who go through puberty early may be more shy and introverted. They may encounter psychological problems because they will not yet have acquired the adult personality traits and social skills that are needed for normal and healthy functioning in their newly developed adult bodies; hence they need to be taught menstrual management.

Menstruation is one of the physiological changes occurring in teenage girls at the onset of puberty. It is characterised by the release of an unfertilized egg through a process called ovulation every 28 days, (Mackean, 1987). There is need for the girl children to be taught on proper methods and strategies for maintaining maximum hygiene during such moments. According to www.irc.nl/page/114, a study on menstrual management in Uganda has shown that there is lack of sustainable menstrual hygiene management for girls; from basics such as facilities to psychological support for girls dealing with menstruation. The schools lack enough toilets, water, washrooms, changing rooms, pads and pain killers and as such, girls' absence from school range from lack of menstrual management facilities to menstrual pain.

As a result of this, many of the girls choose to stay at home during their period. Once these girls go home they do not want to go back for fear of being scolded or found out. One executive director of Uganda Water and Sanitation N.G.O Network on site www.irc.nl/page/114 urged stakeholders in the Ministry of Education to capture menstrual hygiene in the national education sector performance report and monitoring and evaluation system of schools. If not addressed properly, menstrual hygiene management will not only lead to more girls missing school but can potentially cause an increase in number of girls dropping out of school altogether. This implies that there is a lot of untapped potential going down the drain due to lack of proper education and training.

Kanyemba (2011) went on to say that during menstrual periods one should make sure that sanitary materials (cloths, pads, cotton) are well disposed of, for instance in the pit latrine, blair toilet or if there is an incinerator. Those who used the cloths were supposed to carefully fold the cloth and put in a plastic bag and at home the cloth should be washed in cold water and soap until no blood stains remained, then later dried in the sunshine and ironed. Above everything else, girls should be taught on the uniqueness of their sex at creation and to appreciate all the changes neither taking place within them without any inferiority complex nor wishing they were of the other sex. Rather they should be taught to develop or boost self confidence in themselves and to equally compete with the pupils of the opposite sex as they are no lesser beings, (Westlake and Westlake, 1992).

## 6.5. An integrated Approach for Teaching and Promoting Good W.A.S.H in Schools

The site www.amshaafrica.org/.../ cites that water, sanitation and hygiene education in schools focuses on the responsibility of the school to provide children with effective and healthy learning environment. It includes the provision of facilities that children need for sanitation, hand washing and water supply and the support for children to develop skills, attitudes and knowledge on effective hygiene. At the same time children can communicate their behaviours and skills at their homes and communities and use it in the future when they become parents themselves.

According to Amsha on www.amshaafrica.org/.../ heads and teachers will need to organize children in the use, monitoring and maintenance of facilities and personal hygiene. They can plan programs for hygiene education e.g. forming health clubs. There is need for teachers and older children to help and monitor younger children in using facilities and maintaining school cleanliness. The educators should be consistent and organize cleaning and maintenance of toilets, hand washing and drinking water facilities by all children. Creswell et.al. (1985) points out that poster construction, puppet show and plays can be effective vehicles for health instructions to children in schools.

According to www.unicef.org/publication/file/.../CFS-WASH-E-web, access to safe, reliable water is a right which has many benefits in a school. For promoting good WASH, the schools should engage on an integrated approach whereby it will employ some of the following strategies or interventions:

Promoting washing of hands with soap and running water. Hands are to be washed after every toilet visit, before and after handling of food. Thirsty children don't make good pupils, therefore there should be a good supply of clean and safe drinking water for the children at school. Dehydration will result due to lack of water and this impairs concentration and performance in class and is a life threatening hazard.

Running a school canteen requires water for preparing food, cooking and washing dishes so the school has to ensure that before the canteen starts running there is a stable water source close-by with a supply that will not dwindle along the way.

Clean, odour free latrines need plenty of water and chemicals as well as brushes for cleaning. The cleaning should be well monitored by staff and senior prefects and the school administration to ensure that they are in good working order. Students to be continuously reminded of the need to be responsible and to keep clean these facilities at all times.

Spraying water helps control dust in classrooms and play-areas and will reduce the incidence of coughs, sneezing and other ailments that can be aggravated by dust, but rather will promote circulation of fresh air within classrooms. This will go a long way in assisting pupils to respire well and perform better in class. For all these strategies to be effectively implemented there is need for the teachers to

be active participants with maximal pupil involvement. Catching the child while young will be a time honoured solution, rather than trying to change and mend the crooked habits in an adult.

#### 7. Research Methodology

Research methodology is a collective term for the structured process on conducting research. The term is usually considered to include research design, data gathering and data analysis. Research methodologies can be quantitative or qualitative. In this case more of the qualitative method was used in an effort to bring out the consequences of poor WASH in schools and also the benefits thereof if properly implemented.

# 7.1. Population

This is a homogenous mass of units containing or sharing a certain trait or character that is of interest to the researcher. It is usually a very large group from which a smaller group is extracted to make generalizations. For the purposes of this study, the target population was approximately 600 pupils attending Tsvingwe high school from the villages surrounding. Since, it was difficult to study the 600 pupils altogether, it was necessary to come up with a sample.

# 7.2. Sample

A sample is subset of the population, according to Saunders et.al. (2005:489). The ultimate desire of sampling is to come up with a manageable representative small group of respondents. Since it was not possible to collect information from the whole population because of costs involved and time, the researcher used a sample of 60 from the population of approximately 600 pupils and 15 teachers. The head, deputy head and two senior mistresses were also included.

## 7.3. Sampling Methods

Sampling procedures are the various methodologies or techniques of obtaining with representative sample (Chimedza 2003). There are quite a number of sampling techniques which include the systematic and random sampling. The researcher relied on stratified random sampling which can also be known as probability sampling. It is a process where every sampling unit in a finite population has an equal chance of being selected for participation in a research study. Stratified random sampling is a method of sampling that involves the division of a population into smaller groups known as strata. The strata are formed based on members' shared attributes or characteristics. A random sample from each stratum is taken in a number proportional to the stratum's size when compared to the population. These subsets of the strata are then pooled to form a random sample.

In this regard forms 1 and 2 pupils were chosen to represent the group of 60 pupils. This group were chosen because they are just entering into adolescence whereby most will be experiencing and adjusting to the body changes for example, enlargement of breasts, hips etc. It is the time when most girls start having menstrual periods. Boys will develop hoarse voices, pubic hairs and sweat a lot, hence hygienic practices needs to be emphasized to them.

#### 7.4. Instruments

Research instruments refer to the techniques of data collection which the researcher deems necessary and essential to the study (Jasen 1997). In this study the researcher used questionnaires, interviews and observations.

# 7.5. Questionnaires

A questionnaire was appropriate for this research since it is one of the most popular methods used to obtain information. Travers (1980) says it is estimated that the questionnaire techniques for gathering data is used in more than half of the total research in education. Information collected through questionnaires is easy to process and represent using graphical methods. A questionnaire has an advantage that since it is easy to administer, it is entirely a practical way of gathering data from a considerable number of respondents over a short period of time. Questionnaires provide confidentially. And responses are not influenced by the appearance and conduct of the researcher, hence, this method has a high degree of anonymity which may increase the chances of having respondents elicit honest and truthful answers as there is no need to please the researcher.

Questionnaires also have some disadvantages. For instance, when dealing with respondents who are illiterate or have language problems they can misunderstand the questions resulting in wrong answers or responses even if the researcher asks clear and specific questions. Travers (1980) asserts that researchers often experience prejudice as a result of misinterpretation and an aversion to interference in personal matters. Some respondents may just withhold information needed because they wish not to give it for the reasons best known to them.

#### 7.6. An interview

Gwimbi et.al. (2003) defines interviews as a conversation between the interviewer and the interviewee with a purpose. They are a flexible and adaptive way of collecting data. The researcher used interview questions which were printed on a schedule. Interviews were convenient for this study since they provided the researcher with room for probing, thus allowing problems to be clarified and meanings well elaborated. One strength of the interview over other instruments is the interviewer's possibility of motivating respondents to reply to questions, hence there are chances of full responses. Another advantage is that it increases comprehensiveness of data. Problems as well could be more easily located and remedied. Researcher obtains further information through facial and other

physical expressions. The interview technique has its own demerits. They may have been biased in selected respondents and even towards the research problem. Respondents might not give all useful and necessary information for fear of being victimized or for any other reasons.

#### 7.7. Observations

The observation guide was used to compliment questionnaires and interviews schedules, in that data which was difficult to obtain could be easily obtained and recorded, thus the importance of triangulation. Cooper and Schindler (2003:402) define observations as the full range of monitoring behavioural and non behavioural activities and conditions. This monitoring can be done with the participant either aware or not aware that s/he is under scrutiny.

The advantage of observation is in being less restrictive and less demanding. The participants can easily be observed. The only drawback is that observation or limitation is failure to learn about the past. It can be difficult to gather information such as intentions, opinions, attitudes, and preferences. For the purposes of this study, observations were made on the pupils cleaning of toilets, classroom maintenance, washing of hands after visiting the toilet, among others.

## 7.8. Validity and Reliability

Saunders et.al (2005:492) defines validity as the extent to which data collection methods accurately measure what they are intended to measure. They seek the relevance of data collection methods. Reliability is the degree to which collection methods yield consistent findings (Robbins and Coulter 1999:347), if other researchers used the same methods as in this study similar observations were made or concluded to be about the effect of not having good W.A.S.H programs running in the school.

# 8. Findings of the study

After the collected data was analysed, the following findings were revealed:

Both male and female respondents had a balanced percentage since the researcher did not want to be biased. Most people think hygiene and sanitation issues have more to do with women than men yet in actual fact every sex, whether female or male should be involved, although the girl child is the most affected. Rene (2007) stresses that education, training and a realization of the need for cleanliness is necessary to everyone. According to www.answers.ask.com/science/.../why-is-sanit..., sanitation is important to the health and well being of all people on earth. Without good, clean sanitation systems, diseases can break out quickly and easily spread. Everyone has a role to play on hygienic and sanitation issues.

On the question which sought the availability of rubbish bins and pits, it was established that rubbish bins were erected and dotted around the school yard but were not emptied in time, until they could no longer hold litter. When wind came it blew papers around the school. The two rubbish pits also within the school premises were also not being used effectively. Results clearly indicated that in the classroom there are no bins. When bins are not placed in the classrooms, litter is thrown on the floor or in the cupboards as indicated by the picture below. This however may cause the classroom to look clumsy, bacteria will start to thrive while some garbage like banana peels may cause pupils to fall and get injured. It's very unhealthy for pupils to learn in a filthy environment as this will trigger the outbreak of diseases such as cholera or diarrhoea. This will then result in pupils missing lectures due to sickness and will have a long time effect on the performance of the pupils in general.



Figure 1

# 8.1. Litter thrown in the cupboard in a classroom

Though bins were placed in the school yard pupils still threw litter anywhere especially at break and lunch time. There is need to teach pupils how to maintain their environments clean and neat. Stewart (1985) states that classrooms and the school compound should be kept clean and free from waste and fecal matter.



Figure 2: Bins filled to capacity

#### 8.2. Sanitary Materials Used

As far as menstruation was concerned, quite a number of the girls (46.7%) still used sanitary pads, 26.7% used cotton wool, 16.6% uses old cloths, and 10% used tissue paper, which could mean that the respondents lived below the poverty datum line hence could not afford to buy sanitary pads. Tissue papers are not safe at all to use for sanitary ware because of the chemicals they contain which may disturb and infect the cervix and is associated with certain cancers. Some pupils walked long distances hence using old cloths may be a challenge to them. These caused girl pupils to abscond school fearing being found out, especially when having heavy flows. According to www.newvision.co.og/new/.../ html, girls' absence from school ranged from lack of menstrual management facilities to menstrual pain. Lack of toilets, water, wash rooms, changing rooms, pads and pain killers was a challenge. It should be a major concern of the school, when there is absence or lack of full involvement in school activities by pupils, be it boys or girls, (Kanyemba, 2011). Concerning the issue of coming to school during periods, it was discovered that 83.3% came to school when having menstrual periods, whilst 16.7% did not come. Some might have absented themselves because they did not have money to buy the proper sanitary materials like pads to use while at school so they would prefer to stay home until the period was over. In light of this, it is wise if the schools would provide pupils with sanitary pads when they start menstruating at school and also in very desperate situations. It is both the duty of the school and parents to raise awareness in the children in order to prevent stigma. According to Kanyemba (2011) menstrual hygiene should be captured in the national education sector, so that pupils are taught proper menstrual hygiene management. Girls will not miss school altogether as they are afforded equal opportunities in education as with boys.

The interview carried out with the school administrators, revealed the following.

All acknowledged that water shortages maybe encountered due to pipe bursts in the area and that there were few drinking and washing points at the school. On improvement measures to take, they said there was need to drill boreholes, install more drinking points and erect plastic tanks. Asked on health and safety of the girl child they pointed out that they rarely provided sanitary pads and pain killers. On the privacy of the girls' toilets they said they really did not have an idea whether they offered the required privacy or not. In actual fact, girls need a toilet that offers maximum privacy yet many a times these. On cleaning materials used to maintain hygiene in the classrooms they provided brooms and buckets, though mops were not provided.

The administrators stated that the school needed to drill boreholes and erect tanks. On sanitation they all agreed that there was a need to build more toilets and clean them daily. According to www.unicef.org/publication/file/ indicate that clean, odour free latrines need plenty of water for cleaning. Lankester (2002) points out that latrine construction should be backed up with full health and hygiene education and help on how to use and clean the latrine properly.

Conclusively, it was noted that at Tsvingwe high school, water was available and safe for drinking but the drinking point was only one tape that serviced the agriculture garden, also used by pupils for drinking and washing hands. At break and lunch times pupils were seen forming long queues to drink and wash their hands. At the toilets there was no tape for pupils to wash their hands after using the latrine. Pupils were observed going straight to the classrooms without washing their hands after using the toilets, because there was no tape near the toilets. This clearly showed that there was a need to install more drinking points, at least one per classroom block.

Classrooms observed were not swept after school, but in the morning during the first lesson when the teacher came to mark the register. This result in other pupils inhaling dust which would end up causing lung infections and the fact that classrooms were not moped meant they would remain stuffy all day.

## 8.3. Types of Toilets Used at School

When asked on the type of the toilets they used at the school, all the respondents (100%) stated that they used Blair toilets, which was true. The majority (76.7%) stated that the toilets were not enough; the remaining 23.3% however said that the toilets were enough. The majority 76.7% who claimed that the toilets were not enough said so because these toilets were built long ago with no other additional being constructed, yet the enrolment of pupils keeps rising every-day.

With regards to the adequacy of toilets, they were too few for the number of pupils. Many pupils opted to seek permission to go to the toilets during lessons to avoid long queues at break or lunch time. This disrupted lessons resulting in pupils losing out lesson time. This causes high failure rate in the school. When toilets are not enough pupils tend to use the nearby bush, boys can urinate outside the

toilet walls which may end up causing diseases like bilharzia. Davies (1995) points out that diseases like typhoid fever and cholera can easily be spread if there is an inadequate water and sewerage system in the school. Site www.unicef.org/zim/water-san-hygiene states that inadequate access to safe water and sanitation services coupled with poor hygiene practices kill and sickens thousands of children every day and leads to impoverishment and diminished opportunities for thousands more.

What needs to be done?	Frequency	Percentage (%)
Build more toilets	44	73.3
Build a large urinary	16	26.7
Total	60	100

Table 1: Alleviating toilet shortages

The majority (73.3 %) of the pupils suggested that more toilets should be built, while 26.7 % suggested that the school should build a large urinary. The researcher assumed that the proposal to build a large urinary could have come from boys as they were the only ones in need of it. All the suggestions stated could be of help to the school if well implemented. The above results show that there were shortages of toilets at the school, hence building more state of the art toilets and a large urinary and sanitation facilities in the schools was a first step towards a healthy physical learning. According to www.unicef.org/zim/.../ the provision of safe water environment benefits both learning and health. Creswell et al (1985) states that, toilets should be as follows: 1toilet to 20 girls, 1 toilet to 25 boys, and 1 urinary to 30 boys.

## 8.4. Frequency of cleaning toilets

The majority (48.4%) said toilets were cleaned once a week, 23.3% said toilets were cleaned daily, while the last groups of 3.3% were not sure how frequent the toilets were cleaned. Most probably the toilets were cleaned once a week as indicated by the majority 48.4%. Toilets needed to be cleaned on a daily basis so that serious health hazards cannot be created. When toilets are dirty pupils shun using them, they end using bushes around. According to www.irc.nl/page/114 (23/03/14) school hygiene education aims to promote these practices that will help to prevent water and sanitation related diseases as well as encouraging healthy behavior in the future generation of adults. If cleaned everyday with the right equipment they won't be problematic.

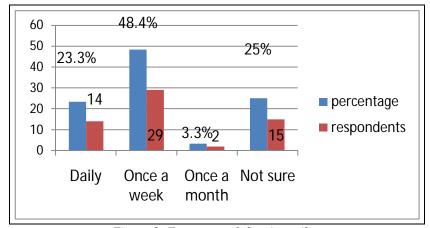


Figure 3: Frequency of cleaning toilets

#### 8.5. Supervision of student's toilets

The majority (73.3%) stated that the caretaker supervised the cleaning of toilets, whilst the least 26.7% stated that prefects did the supervision. The above results show that teachers on duty did not supervise the cleaning of toilets. The caretaker alone could not manage to supervise both the girls and boys toilets. The fact that he is a male makes it difficult for him to properly supervise the cleaning of girls' toilets to the level of hygiene expected. According to Unicef (www.irc.nl/page/114) there is need to train teachers, heads and all educators to carry out a plan for organizing children in use, monitoring and maintenance of facilities and in personal hygiene.

Frequency	Percentage (%)
59	98.3
1	1.7
0	0
0	0
60	100

Table 2: Sources of water in the school

It has been noted that the school gets water from the nearest municipality, the water is safe and clean for drinking and washing purposes. The council has the mandate to provide clean and safe water to the school. Stewart (1985) points out that essential public health require safe and adequate water.

## 8.6. Sufficiency of water

With regards to sufficiency of water, it was noted that there were instances when municipal water didn't come because of pipe bursts, leaving the school with nothing since it did not have reservoirs like tanks. A school cannot run without water, pupils need water for drinking and washing their hands before and after eating. Water is also needed for cleaning toilets and for other uses like watering the garden and mopping the classrooms floors. The one drinking and washing point was only feasible for a family set up and not for a whole school.

# 8.7. Measures to be taken to alleviate water shortages

Responses given by the respondents on how to alleviate water shortages at the school had the majority of the respondents (77.8%) indicating that there was a need to drill boreholes, 11.1% indicated that there was need to increase number of tapes at the school and erect plastic tanks. Due to water bursts or sometimes late payment of bills by the school, the school experienced water shortages. Another 11.1 % of the respondents said a tape should be installed near the toilet, for pupils to wash hands after using the latrine. Schools should not only provide sufficient, safe drinking water, but also sufficient water for hand washing. There should be a tape by each classroom block for easy access to drinking and washing water.

# 8.8. Recommendations and way forward

In order to minimize effects of poor W.A.S.H programmes running, the following recommendations were made:

- Building more state of the art toilets and large urinary and sanitation facilities in the schools is a first step towards a healthy physical learning.
- The school to organize public education and awareness programs on W.A.S.H. with the Non-governmental organizations taking action in public education awareness campaigns and fund W.A.S.H programmes where possible.
- The school to provide not only safe water but also sufficient water for hand washing.
- Educators should organize children in the use, monitoring and maintenance of facilities and in personal hygiene. Educators
  and Public health officers to work hand in hand with schools to support children to develop skills, attitudes and knowledge on
  effective hygiene.
- Policy makers should include health education and W.A.S.H in the curriculum.
- Parents need to teach their children health habits at home and communities to take W.A.S.H programs as a priority to enlighten their residents.

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