

# Influence of Availability of Sanitary Facilities on the Participation of the Girl-Child in Public Primary Schools in Garissa County, Kenya

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## Abstract

Every child has the right to quality education and good health care. The government of Kenya introduced Free Primary Education to ensure all school aged children acquire basic education. Despite this government investment, the participation of girls in primary school education has been low. This study aimed at assessing the influence of sanitation on participation of the girl-child in public primary schools in Garissa County, Kenya. The study adopted a descriptive survey research design. The targeted population was made up of girls and teachers in public primary schools. A sample size of 704 respondents comprising of 640 class seven girls, 32 head teachers and 32 class seven class teachers was sampled. Questionnaires, observation schedules and interview schedules were used for data collection. Validity of the research instrument was ascertained through experts in research of Chuka University. Descriptive statistics were used for data analysis aided by the Statistical Package for Social Sciences (SPSS) Version 20. The results were presented in tables and figures. Most schools did not have adequate toilets and did not provide adequate sanitary pads. The schools did not have hand washing points and tissue papers. The study revealed that availability of sanitary pads, washing water points/soap and toilets influenced enrolment, concentration, self-confidence, attendance and performance of girls in education. The study recommends development of clear policies on provision of sanitation facilities and increases the number of sanitary pads supplied per girl. The government should set aside adequate budgetary allocation to provide school with sanitary facilities.

## Keywords

Availability, Sanitary Facilities, Participation and Girl-Child

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## 1. Introduction

The education of girls, which is restricted in some countries, yields benefits that extend beyond themselves to their communities and to the society at large [1]. A woman with six or more years of education is more likely to seek prenatal care, assisted childbirth, and postnatal care, reducing the risk of maternal, child mortality and illness [2]. Educated mothers are 50% more likely to immunize their children than mothers with no schooling [1]. The majority of farmers in the developing world are women; hence greater female education leads to more productive farming and accounts for over 40% of the decline in malnutrition achieved since 1970 [1]. According to UNICEF (2008) for every 10% increase in female literacy a country's economy can grow by 0.3% [3]. Increasing participation of girls in education therefore plays a critical role in promotion of socio-economic welfare of the nation. This gave impetus to the current study.

To improve access and participation in socio-economic development, the government of Kenya implemented the free primary education programme in January 2003 with the aim of providing more opportunities to the disadvantaged school age children [4]. The programme created a positive outcome because it resulted in significant increase in enrolment in a majority of the schools [5]. The free primary education (FPE) policy abolished school fees and other levies arguing that fees and levies posed a serious hindrance to children wanting to access education in schools [4]. With the introduction of free primary education policy the gross enrolment rate (GER) increased from 92% in 2002 to 104% in 2003 of the school age children population [5]. The FPE policy also resulted in more than 1.5 million children who were previously out-of-school joining primary schools. This resulted to overcrowding in schools as the existing facilities were not proportionately expanded [6].

Despite the heavy investment serious challenges have bedeviled the implementation of the FPE policy [7]. Free Primary Education led to pressure on provision of sanitation facilities specifically the toilet, washing water points, tissue papers and sanitary pads [8]. According to [9] pressure on existing sanitation facilities has negatively influenced the quality of teaching and learning on one hand and contributed to indiscipline, dropout and repetition especially among female pupils. The legal provisions and policies governing education in Kenya as spelt out in the School Management Guide, outlines the number of sanitation facilities (toilets) required in primary school in the ratio: 1:30 for boys; 1:25 for girls; at least a urinal for boys; and at least one toilet for staff [10]. According to the Ministries of Public Health and Sanitation all sanitary facilities must be constructed as per the requirement of the building code, Public Health and Education Acts should ensure that boys and girls have separate sites and take cognizance of children with special needs and age especially aperture design [11]. These sanitary facilities should provide privacy, easy to clean, maintain and appropriate bins (where possible pedal operated) for disposal of sanitary towels [11]. Schools should have a policy on waste collection; storage and appropriate disposal hence need to have containers for waste collections at specific sites/areas [12]. The ministry of education emphasizes the need to have girls facilitated to acquire sanitary pads and be educated on their safe disposal [12]. The government of Kenya hence established the primary school sanitary pads program in the year 2012 with the aim of ensuring consistency in class attendance and curbing drop out among the girls. Despite the effort by the government of Kenya to provide sanitary pads to primary school girls, drop out among girls in primary schools persists [13]. The current study endeavored to establish the availability of sanitary facilities in Public primary schools in Garissa County in relation to the participation of girl child in education.

Since independence in 1963 schools in districts in North eastern Kenya have continued to exhibit extensively lower access, participation, achievement and completion rates [4]. A report by the Ministry of Education shows the existence of gross regional and gender disparities in education with North eastern province registering the lowest NERs in both public and private schools [14]. The government has articulated its commitment to providing Primary Education for all its school age children. In spite of this commitment, low female participation in education remains a drawback to realizing an ideal equality and universality of primary education. Garissa District is still lagging behind as far as girls' participation in primary education is concerned [15]. The current study endeavored to establish the influence of availability of sanitation facilities on participation of the girl child in education.

### Statement of the Problem

Female literacy is given much importance as it is associated with sustainable fertility rates, increased birth spacing and lower maternal death. The low participation of girls in education has been associated with the lack of sanitary facilities. No empirical data is available to explain this scenario and especially Garissa County. The ob-

jective of this study was to determine the influence of availability of sanitary facilities on the participation of the girl-child in public primary schools in Garissa County, Kenya.

## 2. Methodology

This study used the descriptive survey research design. The study was carried out in Garissa County; Kenya. Garissa County is located in North Eastern Kenya and covers an area of 44,174.1 Km<sup>2</sup>. The location of the study was chosen because primary schools in Garissa County have been affected by low enrolment, high incidences of absenteeism, poor academic performance and high drop out among girls. The target population was 98,936 subjects comprising of 98,475 girls and 461 teachers in public primary schools in Garissa County, Kenya.

To take care of attrition and to get a better representative, a sample size of 736 respondents was sampled. The sample constituted of 640 class seven girls, 32 head teachers and 32 class seven class teachers.

Questionnaires, Focus Group Discussions and observation schedule were used for data collection. Piloting of instruments was done in four schools in Isiolo County. Reliability of the instruments was tested using cronbach coefficient alpha method in order to assess the quality of the instruments. A correlation co-efficient of 0.8 and 0.9 was obtained with the teachers and pupil's questionnaires. Validity of instruments was ensured through the expert judgment of members of the Department of Education, Chuka University. Descriptive statistics was used to analyze both qualitative and quantitative data obtained, which included frequency counts and percentages. The results of data analysis were presented in summary using frequency tables and figures.

## 3. Results and Discussion

### 3.1. Demographic Characteristics

Background information of the schools in which the participants were drawn was gathered Enrolment of boys and girls in these schools is shown in **Table 1**.

According to the finding revealed in **Table 1**, there were more (61.9%) boys than girls (38.1%) who were enrolled in primary schools in Garissa County. This indicates that measures put in place by the ministry of education to address gender disparity in primary schools have not adequately addressed the problem of low participation.

The study also established the availability and number of toilets in the study schools. All the schools had pit latrines which were mainly ordinary and ventilated improved pit latrines. A total of 286 pupil latrines were present in the studied schools and were subjected to an observational assessment. **Table 2** presents the distribution of toilets among the boys and girls.

Information in **Table 2** show that out of a total of 286 toilets counted in the study schools, 116 toilets were set

**Table 1.** Pupils' enrolment by gender.

Gender	Frequency	%
Boys	17,066	61.9
Girls	12,274	38.1
<b>Total</b>	<b>29,340</b>	<b>100.0</b>

**Table 2.** Distribution of toilets.

Category	Number of toilets	
	F	%
Boys	116	40.6
Girls	123	43.0
Both boys and girls	47	16.4
<b>Total</b>	<b>286</b>	<b>100.0</b>

aside for boys while another 123 were for the girls. A total of 47 toilets in the study schools were shared by both boys and girls. From the information obtained on enrolment of pupils and the number of toilets by gender in the studied schools the toilet pupil ratios were computed and the information is presented in **Table 3**.

**Table 3** shows that the ratio of toilets to boys was 1 toilet for every 107 boys while that of girls was 1 toilet for every 62 girls in the studied schools. The legal provision governing education in Kenya as spelt out in the school management guide outlines the number of sanitation facilities required in primary school in the ratio of 1:30 for boys, 1:25 for girls, at least a urinal for boys and one toilet for staff [9]. The findings therefore established that the number of toilets in the study schools were inadequate for both boys and girls.

### 3.2. Availability of Sanitary Facilities

*The objective of the study was to seek information on the influence of availability of sanitary facilities on the participation of the girl child in public primary schools.* Items which sought information on the availability of sanitation facilities were included in the instruments. Pupils, head teachers and class teachers' opinion was then sought on the extent to which availability of sanitary pads affected enrolment, class attendance, self-confidence, concentration in class and performance of girls. First the researcher sought the opinion of the respondents on availability of sanitary facilities in their school. This information is presented in **Table 4**.

According to information shown in **Table 4** all (100.0%) of the teachers and head teachers indicated that there were toilets in their school. On the availability of hand washing points and soap majority (68.8%) of the head teachers indicated that the facilities were not available in their schools. Similarly the responses by the teachers on availability of hand washing points and soap supported those by the head teachers with 75.0% noting that the facilities were not available. Tissues were not available as indicated by most (87.5%) of the head teachers and 81.2% of the teachers. All (100.0%) of the teachers indicated that sanitary pads were available while only 56.3% of the held similar opinion. The findings show that toilets and sanitary pads were available in all the schools in Garissa County, while washing water points and soap and tissue papers were not available in most of the schools.

The study sought the opinion of the respondents on the extent to which availability of sanitary facilities influence participation of girls in education in Garissa County. The responses elicited from the head teachers pertaining to influence of the availability of sanitary towels on participation of girls in education are presented in **Table 5**.

Information presented in **Table 5** indicated that availability of sanitary pads affect enrolment of girls to a very great extent as cited by 62.1% of the head teachers. The findings are in agreement with [12] if proper school sanitation and hygiene are made available children are likely to come to school, enjoy learning, learn better and

**Table 3.** Pupil-toilet ratio.

Category	Number	Number of toilets	Toilet-pupil ratio
	F	F	
Boys	12,448	116	1 Toilet:107 Boys
Girls	7656	123	1 Toilet:62 Girls

**Table 4.** Availability of sanitation facilities.

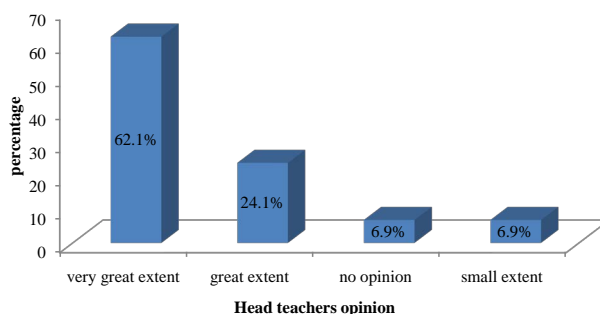
Sanitation facilities	Head teachers				Teacher			
	Yes		No		Yes		No	
	f	%	f	%	f	%	f	%
Toilets	32	100.0	0	0.0	32	100.0	0	0.0
Hand washing points and soap	10	31.2	22	68.8	8	25.0	14	75.0
Tissue papers	4	12.5	28	87.5	6	18.8	26	81.2
Sanitary pads	32	100.0	0	0.0	18	56.3	14	43.7

take back to their families the concepts and practices of sanitation and hygiene. Lack of sanitation facilities on the other hand lead to absenteeism, drop out, repetition, risks of diseases and also sexual harassment.

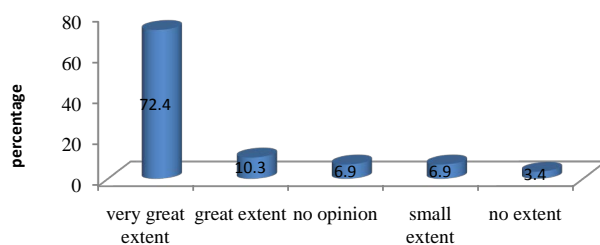
On whether availability of the sanitary pads affected class attendance by girls, the head teachers presented their opinions and are shown on **Table 6**.

According to the information presented on **Table 6** majority (71.4%) of the respondents were of the opinion that availability of sanitary pads influenced the attendance of class by girls to a greater extent. Another 21.4% indicated class attendance by girls was influence to a great extent by availability of sanitary pads. None of the respondents indicated to no extent, while 3.6% reported that availability of sanitary pads influenced girls class attendance to a less extent. A similar (3.6%) of the respondents had no opinion. The study sought information on the extent to which availability of sanitary pads had influenced the girl’s self-confidence. The information obtained is presented by **Figure 1**.

Availability of sanitary pads influenced the self-confidence of girls to a very greater extent as revealed by majority (62.1%) of the respondents in **Figure 1**. Most of the participants argued that girls avoided school while experiencing menstruation for fear of ridicule as they lacked adequate sanitary pads. Some said that during menstruation some girls actually used old brackets and this eroded their self-confidence for they feared messing themselves in school and being ridiculed by their male counterparts. The opinions of the respondents were also sought on the extent to which availability of the sanitary pads affected Concentration of girls in class. The findings are shown by **Figure 2**.



**Figure 1.** Influence of sanitary pads on girls’ self-confidence.



**Figure 2.** Effect of availability of sanitary pads on concentration of girls in class.

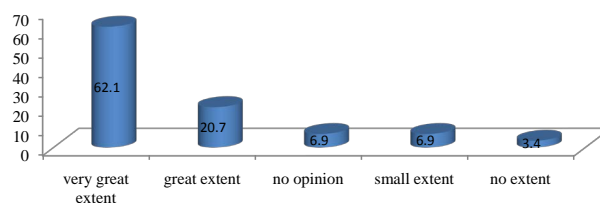
**Table 5.** Head teachers opinion on the extent to which sanitary pads influence enrolment.

Item	F	%
Very great extent	18	62.1
Great extent	2	6.9
No opinion	1	3.4
Small extent	3	10.3
No extent	5	17.2
<b>Total</b>	<b>29</b>	<b>100</b>

Information presented by **Figure 2** indicates that availability of sanitary pads influence concentration of girls in class to a very great extent as opined by 72.4% of the respondents. The extent which availability of the sanitary pads affected Performance of girls in school was also investigated. The information generated is presented by **Figure 3**.

According to information presented on **Figure 3**, majority (62.1%) of the respondents were of the opinion that availability of sanitary pads influenced the performance of girls in classes to a very great extent. The extent to which availability of tissue paper affected participation of girls in school was investigated. Data generated on influence of tissue papers on girls' enrolment is presented in **Table 7**.

According to information in **Table 7**, majority (30.0%) and 26.9% of the respondents indicated that availability of tissue papers influenced enrolment of girls to no extent and very great extent respectively. Data generated from the respondents on the extent to which availability of tissue paper affected self-confidence of girls in school was analyzed and if presented in **Table 8**.



**Figure 3.** Effect of availability of sanitary pads on girls' performance.

**Table 6.** Influence of availability of sanitary pads on girls class attendance.

Item	F	%
Very great extent	20	71.4
Great extent	6	21.4
No opinion	1	3.6
Small extent	1	3.6
<b>Total</b>	<b>28</b>	<b>100</b>

**Table 7.** Influence of tissue papers on girls enrolment.

Item	F	%
Very great extent	140	26.9
Great extent	40	7.7
No opinion	120	23.1
Small extent	60	11.5
No extent	160	30.8
<b>Total</b>	<b>520</b>	<b>100</b>

**Table 8.** Influence of tissue paper availability on girls self confidence.

Item	F	%
Very great extent	100	19.2
Great extent	60	11.5
No opinion	100	19.2
Small extent	60	11.5
No extent	200	38.5
<b>Total</b>	<b>520</b>	<b>100</b>

**Table 8** shows that availability of tissue papers influence the self-confidence of girls to no extent as cited by majority (38.5%) of the respondents. Those who held the opinion that availability of tissue papers influenced girls’ self-confidence to a very great extent and great extent accounted for 19.2% and 11.5% respectively. The study further sought to determine the extent to which availability of washing water points and soap/detergents influenced class attendance, self-confidence, concentration in class and performance of girls. The extent to which availability of washing water point and soap/detergent influenced class attendance of girls was also investigated. The information generated is shown in **Figure 4**.

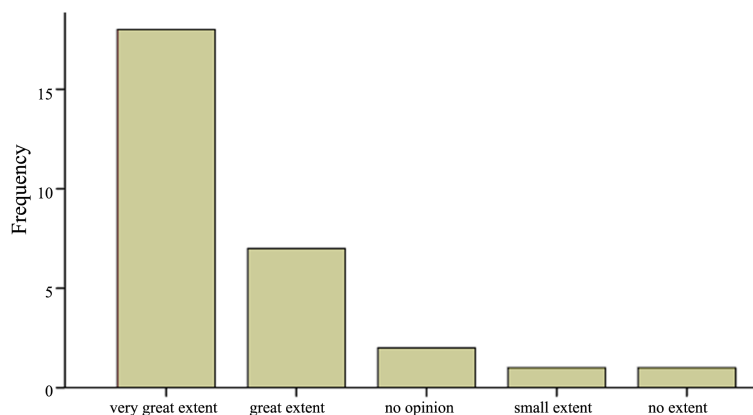
As indicated in **Figure 4**, majority (72.4%) of the respondents showed that the availability of the hand washing water points and soap/detergents affect participation of girls’ self-confidence in school to a very great extent. The extent to which availability of washing water points and detergents influenced the concentration of girls in class was also investigated. Data generated to this effect is presented in **Table 9**.

Results presented in **Table 9** shows that majority (57.1%) of the respondents indicated that to a very great extent if water points and detergents were in school then that would affect the girls participation in learning positively through concentration in class. The other 21.4% of the respondents said to great extent that hand washing water points and detergents were vital in school in a sense that it will assist the girls’ concentration in class.

#### 4. Conclusions

Based on the finding of the study the following conclusions were drawn:

- 1) The ratio of toilets to girls in public primary schools revealed that the toilet facilities were inadequate and did not meet the numbers recommended by the ministry of education.
- 2) Most primary schools did not provide hand washing points and soap, tissue papers and sanitary pads for the girls.
- 3) Availability of toilets, sanitary pads and hand washing water points influenced participation of girls in education to a very great extent.



**Figure 4.** Influence of availability of washing water points and soap on class attendance.

**Table 9.** Influence of washing water points and soap/detergent on girls concentration in class.

Item	F	%
Very great extent	320	57.1
Great extent	120	21.4
No opinion	40	7.1
Small extent	60	10.7
No extent	20	3.6
<b>Total</b>	<b>560</b>	<b>100.0</b>

- 4) The availability of sanitary facilities influenced enrolment, class attendance, self-confidence, concentration in class and performance among girls to a great extent.

## 5. Recommendations

To promote participation of girls in education, the Government should development of clear policies on provision sanitation facilities, increase the number of sanitary pads supplied per girl and set adequate budgetary allocation to provide adequate sanitary facilities for all primary school in Garissa. These should include toilets, hand washing water points, tissue papers and sanitary pads.

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