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Impact of Social Amenities on Academic Performance in Primary Schools in Gichugu Constituency, Kenya

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Abstract:

Social amenities are important as primary schools strive to provide quality education. Social amenities include play materials and sanitation. This study was to examine the impact of social amenities on academic performance in primary schools in Gichugu Constituency, Kenya. The study objectives were to establish the status of social amenities in primary schools and to establish how sanitation amenities influence pupils' performance in primary schools. This study was guided by Social Constructionist Theory that posits that knowledge acquisition involves language, community, social interaction and other cognitive functions that affect individual's intellectual development. The study was carried out in Gichugu Constituency, Kirinyaga County, Kenya. The target population consisted of 75 primary school head teachers. Kathuri and Pals Table for Sample Size Determination were used to arrive at a sample size of 63 school heads teachers who were randomly selected from the target population. A questionnaire and an observation guide were used to collect data from the respondents. A pilot study was conducted to ensure the reliability of the instruments. Data was collected, organized into themes and categorized before being analyzed using descriptive statistics with the aid of The Statistical Package for Social Sciences (SPSS Version 20) to generate charts, frequency tables, means and standard deviation. The study found out that majority of the head teachers (80%) agreed with the statement that their school children had access to clean and safe drinking water although there were some schools that used water from the rivers and streams near the schools. The study also found out that majority of the schools had access to adequate sanitation amenities for their pupils. The study found out that social play materials play an integral part in allowing children to develop communication, persistence and other social skills. It was noted that sanitation amenities were not adequate for the number of learners in primary schools in the study region. The sanitation facilities did not cater for learners with physical disabilities. The study concludes that lack of sanitation amenities such as piped water and good toilets led to occurrence of diseases such as typhoid, cholera and other highly contagious diseases which affect learners' access to education through high absenteeism rates. The study recommends that the Ministry of Education and other education stakeholders should emphasize the role of social amenities in primary schools in order to improve the learners' motivation and overall academic performance of all schools in Kenya.

Keywords: Sanitation and play materials

1. Background to the Study

One of the Millennium Development Goals calls on countries to reduce the proportion of people without access to basic sanitation by half (Guy & Haller, 2007). Williams, Persaud and Turner (2008) noted that eradication of open defecation, improved hand washing practices as well as ensuring that liquid and solid wastes are properly managed would not only help in ensuring proper sanitation practices but also save an estimated 1.9 billion school days that could be lost due to diarrhoea illness and other water and sanitation-related diseases. It is important to note that schools are important and stimulating learning environments for children which have the potential to significantly alter the behavior patterns of students leading to improved sanitation practices that they get to learn in public primary schools.

In Kenya, Eshuchi (2013) carried out a survey of various campaigns in schools to improve the hygiene standards such as WASH campaigns. Eshuchi noted that the government and non-government stakeholders in Kenya have initiated hygiene promotion campaigns in public primary schools across the country. He noted that this includes curriculum developed by the Ministry of Public Health and Sanitation (MoPHS), the Ministry of Education (MoE), the Kenya Institute of Curriculum Development (KICD) together with other stakeholders sensitizing the public on hygiene and sanitation. Dettol Hand Washing campaign is one of the strategies used to sensitize children on the need to wash hands. Mbula (2014) carried out a survey of sanitation amenities in schools in Machakos county, Kenya. Mbula noted that improved sanitation amenities are not limited to latrines, water but that these amenities must be well ventilated and with slab floors. Mbula built up a relationship between good social amenities and improvement in school attendance as well as overall performance in examinations. Gichugu constituency, is my home county where I live and work in, public schools face financial challenges and thus most do not have funds to cater for expanding the social amenities following the introduction of free primary education in 2002 by the NARC government, thus the need to assess the social amenities in the primary schools.

2. Theoretical Framework

The study was based on Social Constructionist Theory as explained by Sahlin (2006). This theory posits that knowledge acquisition involves the following facets; the language used, the language, the surrounding community, societal social interaction and other cognitive functions will influence a learner's intellectual development. This study is of the view that learner's knowledge acquisition is highly influenced by social engagements and therefore the social amenities play a pivotal role in aiding intellectual development of children. Social processes play a pivotal role in the development of intellectual thought and thus provision of social amenities could be related to academic performance. The provision of social play amenities such as play fields and social play materials assists learners in development of social skills which provide a yard stick for intellectual growth as well as life skills development. Thus social play materials provide learners with tools to exercise and develop their social skills that ensure learners are capable of interacting with other learners, community and the society at large. This study collected information from Gichugu Constituency primary schools that showed the link between social amenities and academic performance of children.

2.1. Sanitation Amenities and Academic Performance

Social play amenities are play materials that allow social development of children within the school and at home. Social play materials play an integral part in allowing children develop communication, persistence and other social skills necessary for development of language, motor skills as well as intellectual growth (Edwards, 2006). In a study conducted in American schools on the role of athletics and academic performance, Gorman (2010) studied how provision of play amenities influences growth and development of intellectual capacity of children. Gorman noted that there are children whose motivation in play influenced their intellectual development and without them it reduces their level of motivation and eventually results to poor intellectual development. This study disputed earlier findings of McMillen (1991) who had argued that athletics eligibility did not prove any positive relationship with academic performance. The study also disputed Beem (2006) who noted that pressure to produce winning teams gave rise to lower academic performance among the top performers in schools. However, Gorman (2010) noted under school sponsorship programs, the participants were more inclined to post positive academic achievements to be sustained in the schools. The current study excludes school sponsorships based on one's play prowess and therefore will be different from that of Gorman (2010). Gorman's study was based on senior school learners who were also highly involved in athletics and therefore the findings involved learners who were at advanced stages in their formative years unlike the current study that is exclusively on primary school children.

Owoeye and Yara (2011) conducted a study in Ekiti State, Nigeria to determine how social amenities in school contribute to academic performance of learners in schools. Using descriptive survey design of the ex-post factor type, the study determined that school social amenities whether health, sanitation, play amenities and academic oriented amenities all have an effect on academic performance. The study therefore argued that provision of academic and social amenities was paramount if the community were to have higher expectations in academics. The findings in this study collaborated Owoeye and Yara (2011) who argued that social amenities affected the children's cognitive development and therefore directly influenced their academic performance. Nigeria is a relatively rich African country due to oil presence and therefore the status of the social amenities in these schools and the level of incomes of the parents among other factors could have influenced the results of the studies. Kenya on the other hand is a relatively developing country and the status of primary schools is not as developed as the Nigerian schools. Gabbad and Elawad (2014) carried a study in Sudan primary schools covering around 500 primary schools, found out that there was statistical significance between access to potable water and intestinal parasite infection among primary school children. The study also noted that the distribution of these infections was mainly associated with poor personal hygiene, environmental sanitation and limited access to clean water among pupils in the Elengaz region primary schools. They therefore concluded that the spread of intestinal parasitic infections in a population is generally associated with water supply and sanitation besides other factors. This study argued that diseases affected the grades that these children achieved in their examinations and to a larger extent affected their education progression.

Redhouse (2004) carried out a study in Tanzanian schools to determine the rate of access to safe drinking water. In this study, a sample of public schools was carried out and was intended to determine how many school children had access to

safe drinking water at a distance of 15 minutes away from the school. This study concluded that less than 12% of the public primary schools had access to safe drinking water. The study noted that lack of safe piped water contributed to prevalence of diseases associated with unsafe water such as typhoid and cholera. Thus the study noted that such sicknesses contributed to lower academic achievement among children due to absenteeism and slow cognitive development due to illness. Kirinyaga is served by rivers emanating from Mt Kenya and thus the level of impurities and pollution in these rivers is low.

Milkie and Warner (2011) argued that schools should ensure they have ample play amenities, access to play tools and teachers encouraged to participate in play activities together with learners. The report argued that schools that lacked play amenities were unsuitable for learning particularly at tender early age learners. In order for learners to develop motor skills which are applied later in life, schools should provide a variety of amenities such as horizontal trunks ropes and temporally items to provide learners with a variety of play amenities and broaden their play scope. Lawrence (2011) argued that innovation in school can increase involvement of learners. He found out that movement increases children's physical and cognitive abilities. It is through activities such as role play, seat changing, coordinated dances among others assist learners get basics like timing, coordination and concentration. These skills are very useful in development of language and problem solving skills which lead to improved academic performance. However, this study was carried out in a more developed country than Kenya and therefore other underlying factors could have played an important role in the findings. The current study will be based in Kirinyaga County which is a relatively more developed region of Kenyan highlands and will provide key data on the role of sanitation amenities in Kenya.

2.2. Research Design

This study adopted a descriptive survey design. Mugenda and Mugenda (2003) descriptive survey design made researchers to get information about a phenomenon under study from selected respondents, thus allowed the researcher to source key data from the respondents. The target population was 75 primary school head teachers. Kathuri and Pals Table for Sample Size Determination was used to arrive at 63 school head teachers who were randomly selected. This design was suitable for this study because a sample was selected from the total number of primary school in Gichugu Constituency, Kenya. The research instruments used in collection of data were questionnaire and an observation guide, the questionnaire contained open ended and closed ended questions. According to Mugenda and Mugenda (2003) open ended questions allow respondents to give unrestricted opinion.

3. Findings of the Impact of Social Amenities in Primary Schools

Children need to be given a variety of social amenities; this avoids boredom to the learners. learners in various different environments are exposed to different social amenities depending on the status of their family backgrounds. Primary schools in Gichugu constituency don't have same social amenities.

The study sought to establish the status of social amenities in primary schools in Gichugu Constituency. Figure 1 summarizes the status of social amenities in primary schools in the region.

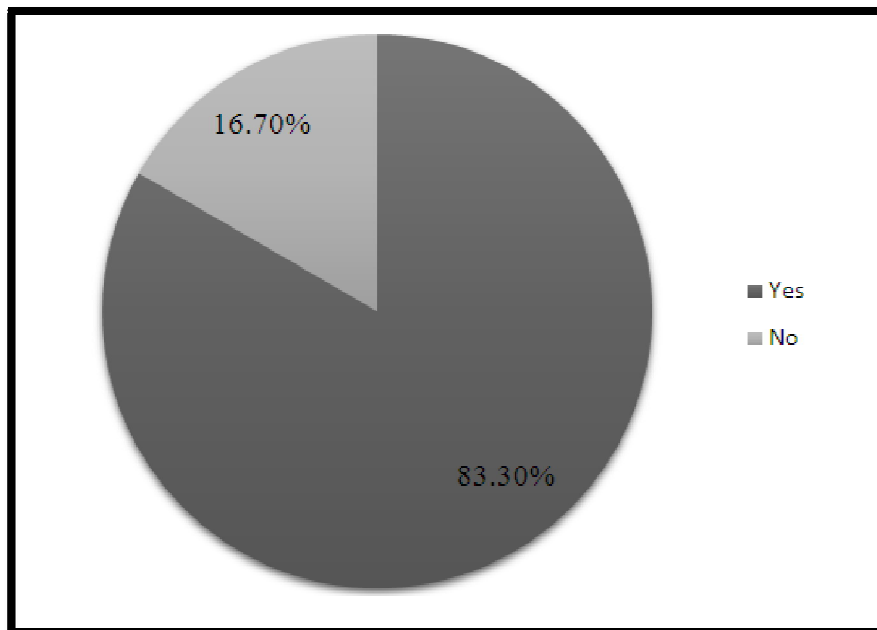


Figure 1: Status of Social Amenities in Primary Schools

The figure shows that majority of the head teachers (83.3%) noted that their schools had access to clean safe drinking water. However, a considerable number of schools lacked safe clean drinking water (16.7%). It was observed that in the 16.7% schools without safe drinking water learners depended on water from streams surrounding the school as shows in Photo A (Appendix A) which shows learners fetching water from a stream. This water from streams is not treated and may expose learners to health hazards such as disease causing pathogens. The study agrees with the findings of Mbula (2014) that majority of the primary schools in Kenya had access to safe and clean drinking water partly due to the efforts of Non-Governmental Organizations that had undertaken WASH campaigns in rural areas of the country. The study contradicted Obure (2009) who noted that public school pupils in Bondo District did not have access to safe drinking water and depended on river and dam water which they fetched on their way to school.

The respondents were asked to indicate if their schools had adequate sanitation amenities for their learners as summarized in Table 1.

Average School Population	Ratio of Pupils to Toilets	Average Mean Grade (2014 KCPE)
200 – 250	1:25	240
	1:16	290
	1:13	327
300 – 500	1:50	180
	1:33	220
	1:25	250
	1:14	325
500 – 800	1:27	274
	1:20	315
	1:13	378

Table 1: Adequacy of Sanitation Amenities

Data showed that majority of schools had inadequate sanitation amenities and this negatively affected their performance. There was evidence of an increased number of learner enrollments in schools with more sanitation facilities in the region due to better performance. However, the study observed that learners with physical disabilities shared the same sanitation facilities with others, thus learners with disabilities had difficulties using these facilities. The study also noted that in some schools boys and girls shared the sanitation facilities. As shown in Table 1 above, schools with a favourable student sanitation ratio posted better results. The study concluded that schools with more sanitation had better results in the KCPE. The study agrees with Maphoso and Mahlo (2014) who established that learners in schools that had the best health, sanitation and other social amenities posted better results in the examinations compared to learners in schools that had poor, worn out or no social amenities. This according to Maphoso and Mahlo (2014) attributed to rising cases of learner absenteeism, poor health among other resultant features associated to poor social amenities.

3.1. Play Amenities and Academic Performance

The study sought to find out the influence of play amenities on academic performance in the region.

Responses	Frequency	Percent
Strongly Agree	45	75.0%
Agree	15	25.0%
Do not Know	0	0.0%
Disagree	0	0.0%
Strongly Disagree	0	0.0%
Total	60	100.0%

Table 2: Social Amenities and Language, Motor and Intellectual Growth

Data in Table 2 above shows that majority (100%) of the school administrators agreed that play materials influenced learners language development, psychomotor and intellectual growth. Play materials were observed to allow for development of persistence and other social skills necessary for the development of language, motor skills as well as intellectual growth. The researcher noted that swings, see-saws, football pitch and balls, merry-go-round, slides among others were common in most schools. The study established that all the social play materials play an integral part in allowing children to develop communication, persistence and other social skills.

The respondents were asked if provision of diverse social play amenities influenced the children's motivation and interaction and the responses are summarized in Table 4.3.

Responses	Frequency	Percent
Strongly Agree	36	60.0%
Agree	24	40.0%
Do not know	0	0.0%
Disagree	0	0.0%
Strongly Disagree	0	0.0%
Total	60	100.0%

Table 3: Diversity of Social Play Amenities and Children's Performance

Data showed that all (100.0%) of the head teachers agreed that provision of diverse social play amenities influenced children's academic performance. The participants agreed that providing diverse social play materials motivates learners by providing a way for children to relax and indulge with others. The study noted that diversity of social play amenities influence children's academic performance.

The study sought to establish the relationship between sanitation amenities and academic performance of learners.

Year	2014	2013	2012
Average KCPE Marks Schools with piped water	Over 300	Over 280	302-315
Average KCPE Marks Schools without piped water	240-280	250-280	236-280

Table 4: Academic Performance in Sampled Schools

Data in Table 4 above shows that the average performance of the schools with piped water in the area under study was over 300 marks compared to schools without piped water which had average marks of 240-280. The study therefore showed that schools with piped water had a higher test scores compared to those without water. The findings corroborate Owoeye and Yara (2011) who noted that social amenities affected children's cognitive development and therefore directly influenced their academic performance. The respondents were asked if sanitation amenities affected enrollment and the responses are summarized in Table 5

Responses	Frequency	Percent
Strongly Agree	32	53.3%
Agree	26	43.3%
Disagree	2	3.4%
Strongly Disagree	0	0.0%
Total	60	100.0%

Table 5: Poor Sanitation Amenities and School Absenteeism

Data in Table 5 showed that 96.6% of the head teachers agreed with the statement that poor sanitation amenities contributed to high incidences of absenteeism in schools. The data also showed that 3.4% of the head teachers disagreed with the statement. The study finds that a poor sanitation amenity leads to increase in the rate of absenteeism in schools. The findings concur with Gabbad and Elawad (2014) who noted that poor sanitation in schools led to high influx of diseases among the learners thus higher rate of school absenteeism. This absenteeism led to low academic performance since learners miss valuable learning time.

3.2. Challenges Faced by Primary Schools in Provision of Social Amenities

The study sought to assess the challenges faced by primary schools in provision of social amenities to learners. The respondents were asked if financial constraints were a challenge in provision of social amenities in their schools and their responses are summarized in Table 6. The study showed that all (100.0%) of the head teachers agreed that financial constraints were a challenge in provision of social amenities in public primary schools.

Responses	Frequency	Percent
Strongly Agree	47	78.3 %
Agree	13	21.7%
Do not know	0	
Disagree	0	0.0 %
Strongly Disagree	0	0.0%
Total	60	100.0%

Table 6: Financial Constraints in Provision of Social Amenities

4. Conclusions

The study concluded that social amenities play a pivotal role in development of communication, intellectual and physical growth among learners in primary schools.

The study further noted that lack of essential social amenities such as access to clean, safe drinking water and lack of adequate sanitation led to increased incidences of absenteeism due to disease attacks. This high absenteeism led to low academic performance among learners. Schools with inadequate sanitation amenities also experienced lower enrollment rates compared to schools with adequate sanitation amenities.

5. Recommendations

In line with the conclusions, the following are recommended to address the issues raised.

- The school administration should construct more sanitation amenities in their schools to correspond with the high population of children and also cater for learners with physical disabilities.
- The Ministry of Education should develop a new construction requirement for early childhood learners' social amenities to ensure that the facilities are best for use by the children aged three to nine years in early childhood and lower primary school.
- Other social amenities such as electricity should be distributed to all sides and buildings in primary schools to make them accessible and user friendly to all learners. The play field should also be well used to encourage use by the young learners in their formative years.
- The Ministry of Education and other education stakeholders should emphasize the role of social amenities in primary schools in order to improve the learners' motivation and overall academic performance of all schools in Kenya.
- The school administration should ensure they provided diverse social amenities to cater for all learners and to encourage cognitive and motor development of all learners. This could be achieved through maximum utilization of the school compound to cater for diverse disciplines and materials.
- The Ministry of Education, Constituency Development Fund and the local community should ensure that all schools had access to piped water to reduce occurrence of diseases such as typhoid, cholera and other highly contagious diseases which affects learners' access to education through high absenteeism rates.

6. References

- i. Adeogun, A. & Olisaemeka A. (2011). Influence of School Climate on Students' Achievement and Teachers' Productivity for Sustainable Development. *US-China Education Review*, 8(4).552-557
- ii. Adesina, B.O (2011). School Plant Planning as Correlate of Students' Academic Performance in Southwest Nigeria Secondary Schools. *International Journal of Business Administration*, 2(2):41-49
- iii. Adiema, N Kemboi, G & M'mbonne, J (2013). Relationship between Play Activities' Implementation and Learners' Academic Performance in Public Early Childhood Development Centres in Pokot County, Kenya. *Journal of Education and Practice* 4(26):132-142
- iv. Al-Shammari S, Khoja T, El-Khwasky. F, Gad, A. (2001). Intestinal parasitic diseases in Riyadh, Saudi Arabia: prevalence, socio-demographic and environmental associates. *Tropical Medicine International Health*, 6: 184-189.
- v. Andiema, N. C & Kemboi, G.C (2013). Relationship between Play Activities' Implementation and Learners' Academic Performance in Public Early Childhood Development Centres in Pokot County, Kenya. *Journal of Education and Practice*, 4 (26).132-140
- vi. Aschalew D. T, Charles F. N, Amy S. C & Tammo S. S (2013) Determinants of household participation in the management of rural water supply systems: A case from Ethiopia. *Water Policy* ,15 (6); 985–1000
- vii. Beem, K. (2006). Righting the Balance in the Athletics-Academic Equation. *School Administrator*, 63(6);10-18
- viii. Commonwealth of Australia (2008). *Physical and Sport Education: a report by the Commonwealth of Australia*. Senate Standing Committee on Environment, Recreation and the Arts. Canberra.
- ix. Edwards, N. (2006). *School Amenities and Student Achievement: Student Perspectives On the Connection Between the Urban Learning Environment and Student Motivation and Performance*. Unpublished Masters Thesis. Ohio State University
- x. Eshuchi, R. (2013). *Promoting Hand-washing with Soap Behaviour in Kenyan Schools: Learning from Puppetry Trials among Primary School Children in Kenya*. Unpublished Master's Thesis. Queensland University of Technology
- xi. Ezeagwuna, D.A., Okwelogu, I.S., Ekejindu, I.M., Ogbuagu C. (2009). The Prevalence and socio-economic factors of intestinal helminth infection among primary school pupils in Ozubulu, Anambra state, Nigeria. *International Journal of Epidemiology*.; 3;41-56
- xii. Fisher, A. A., Leing, E.J., & Townsend, W. J. (1995). *Handbook for Family Planning Operations Research Design*. Second Edition, Population Council.
- xiii. Gabbad, A. & Elawad, M. (2014). Environmental Sanitation Factors Associated with Intestinal Parasitic Infections in Primary School Children in Elengaz, Khartoum, Sudan. *Journal of Environmental Science*, 8 (1), 119-121.
- xiv. Gall, M. D. Gall, J. P., & Borg, W. R. (2007) *Educational research: An introduction*. Boston: Pearson Education
- xv. Gorman, D.A (2010). *The Effect of Athletic Participation on Academic Achievement for High School Seniors in Eastern*

- Tennessee. Unpublished Doctorate Thesis. Tennessee University.
- xvi. Guy, H. & Haller, L. (2004). Evaluation of the costs and benefits of water and sanitation improvements of the global level. WHO, Geneva
- xvii. Kathuri, J. N. & Pals, D. A. (1983). Introduction to Educational Research. Egerton University: Educational Media Center.
- xviii. Kiess H. & Bloomquist D. (1985). Psychological Research Methods: A Conceptual Approach. Boston, Allyn & Bacon.
- xix. Kothari, C. (2004). Research Methodology: Methods and Techniques. New Delhi: New Age International (P) Limited, Publishers
- xx. Laura M, Federica B, David D. C, Lucia. E, Gioia C, Domenico O & Annunziata G. (2012). Intestinal Parasite Infections in Immigrant Children in the City of Rome, Related Risk Factors and Possible Impact on Nutritional Status. *Parasites & Vectors*, 5:265.
- xxi. Lawrence, B.M. (2011). Dramatic Play and Social/Emotional Development. Unpublished Masters Thesis. Concordia University Portland
- xxii. Maphoso, L & Mahlo, D. (2014). Basic Amenities and Academic Achievement: A Comparative Study between Boarding and Non-boarding Schools. *International Journal of Education and Science*. 6(2):309-315.
- xxiii. McMillen, T. (1991). Reversing the Imbalance of Athletics and Academics. *The Elementary School Journal*, 91(5), 489-90.
- xxiv. Mbula, S. Mulwa, A. & Kyalo, D (2014). Access to Improved Sanitation: Implication for Sustainable Implementation of Hygiene Practices Secondary Schools in Machakos County, Kenya. *European scientific journal* 10(1)151-168
- xxv. Milkie MA, & Warner, C. H (2011). Classroom Learning Environments and the Mental Health of First Grade Children. *Journal of Health and Social Behavior*; 52(1): 14-22.
- xxvi. Mugenda, O. M. & Mugenda, A.O (2003). Research Methods: Qualitative and Quantitative Approaches. Nairobi- Kenya: Africa Centre for Technology Studies (ACTS) Press.
- xxvii. Mukhtar, E. (2008). Situation Analysis of the Education Sector in Pakistan. UNICEF.
- xxviii. Ochieng, D. (2013). Influence of School Water, Sanitation & Hygiene programs on pupils' Performance among Rural Public Primary Schools in Maseno Division, Kisumu County, Kenya. Unpublished Masters Thesis. University of Nairobi.
- xxix. Obure, A. (2009). Scaling School WASH in Rural Kenya: An Assessment of Kenya Education Sector Support Program. Geneva.
- xxx. Otieno, R. (2011). Factors Influencing Girl Child Education in Primary Schools in Kadibo Division Kisumu East District, Kenya. Kisumu. Unpublished Thesis. University of Nairobi
- xxxi. Owoeye, J. & Yara, P. (2011). School Amenities and Academic Achievement of Secondary School Agricultural Science in Ekiti State, Nigeria *Asian Social Science* 7 (7) 64-66
- xxxii. Pinar, O. & Sema, E. (2004). Intestinal parasites prevalence and related factors in school children. *International Journal of Children*, 64:1471-2458.
- xxxiii. Redhouse, D. (2004). Getting to boiling point: Turning up the heat on Water and Sanitation. National Water Sector Assessments. Water Aid
- xxxiv. Rheingans, R. Brumback, B & Freeman, B (2014), Impacts of School Water, Sanitation and Hygiene on Absenteeism in Western Kenya: Implications and Questions. Unpublished Report London School of Hygiene and Tropical Medicine
- xxxv. SCEO (2014). Analysis of Education in Kirinyaga County. Unpublished, Education Report.
- xxxvi. Tamilenthir, S. Mohanasundaram, K & Padmii, V (2011). Staff, Infrastructure, Amenities and Academic Achievements of the High Schools of Chipata District, Eastern Province of Zambia. *Archives of Applied Science Research*, 2011, 3 (6):131-140
- xxxvii. UNICEF. (2010). Raising Clean Hands: Advancing Learning, Health and Participation through WASH in Schools. New York.
- xxxviii. UNICEF/WHO. (2011). Water, Sanitation and Hygiene Standards for Schools in Low-cost settings.
- xxxix. Vikram M, Juanita H, Saeed A, Ghazala R, & Mohammad A. B. (2008). Prevalence and Factors Associated with Intestinal Parasitic Infection among Children in an Urban Slum of Karachi. *PLoS ONE*, 3(11): 36-80
- xl. Water Aid 2004. New Water Aid Report: Water and Sanitation, The Education Drain. From <http://www.wateraid.org>. (Retrieved on December 14, 2014).
- xli. WHO (2002). Managing water in the home.
- xlii. Wiersma, W. (1995). Research Methods in Education: An Introduction (Sixth edition). Boston, Allyn and Bacon.
- xliii. Williams, E., Persaud, G, & Turner, T. (2008). in Linda, K. Lemasters (Ed). International Society for Educational Planning (ISEP). George Washington University, Washington D.C
- xliv. Whitebread, D. (2012) the Importance of Play. A Report on the Value of Children's Play with Series of Policy recommendations. Toy Industries of Europe

Appendix



Figure 2: School Children Fetching Water from a Nearby Stream

Sanitation Facilities and Learners with Physical Challenges



Figure 3: A Physically Disabled Learner and Sanitation Block Primary School