Administrative Strategies to Address Wastage in Public Primary Schools in Arid and Semi-arid Areas of Kenya

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Abstract

The purpose of this study was to investigate the strategies to eradicate wastage in public primary schools in Baringo County. The objectives of the study were to: assess the education polices and institutional processes, school-based, house hold and community based and student related strategies that may be used to eradicate wastage in public primary schools in Baringo County. The study was guided by the Social Darwinism Theory of Equal Opportunities. The study adopted a mixed method research design. The target population comprised of 6 sub-county District Quality Assurance and Standards Officers (DQASOs), 370 head teachers, 2960 teachers and 370 parents from 370 public primary schools. Purposive sampling technique was used to select 36 head teachers, 36 parents and 6 Sub county DQASOs. Simple random technique was used to select 289 teachers to participate in the study. Questionnaire, interview schedule and document analysis were the tools of data collection. Data obtained was organized, coded and analyzed using qualitative and quantitative techniques. Pearson Product Moment Correlation was computed to assess relationships between the variables and findings were presented in form of tables, charts and graphs. The study findings revealed that in order to address wastage in schools, a number of factors, strategies and their linkages needed to be investigated. School factors that dispirit students from continuing with their education unattractive school condition policy irregularities were some of the examples that could act as push factor to students. Both demand and supply driven factors play a role in the process of school dropout and therefore they should be addressed as one. The study concluded that activating and strengthening guidance and counseling in schools were the best solutions for dropout in schools; high student-teacher ratio contributed more to dropping out in schools; cultural impact/harassment favoured pupils drop out from school and that making educational materials more available would enhance schools internal efficiency. The study recommended that teachers, parents and pupils be involved in efforts to address the school related factors leading to wastage in the county.
Key words: *Wastage, education policy, institutional policy, school-Based*

Introduction

Wastage in this paper means dropout of pupils from school and failure to hold them within the system resulting in them leaving the schools before completing the primary course. The number of primary schools is increasing in our country every year. The term wastage is used within the field of education to describe

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various aspects of failure of an educational system to achieve its objectives (Yusuf, 2014). He further viewed wastage as failure of students to attain the qualifications they had registered for in a given course and that it arises from repetition and it is a sign of internal inefficiency in the education system. UNESCO (2008) defined wastage to include drop outs, repeaters, premature withdrawal from schools and non-employability of school leavers. Wastage occurs through the failure of countries to achieve their educational objectives, when children fail to reach target achievement levels, in repetition of grades, in premature school leaving, in unemployable school leavers (UNESCO, 2008).

Globally, education has brought about high social rates of return which is estimated to be 27% for completed primary education and 15-17% for secondary education. Correspondingly, private returns of education have been found to be significantly higher than social returns estimated at 49% for primary and 26% for secondary education. Notably, education remains a profitable occupation. For example, a report by Bernard (2005) supports this notion by indicating that education is one of the most effective ways to reduce poverty, give people opportunity to improve their lives and raise their voice, improve their health, productivity and foster participation in civil society.

Africa has been relatively good at getting children into primary school, but poor at inducing them to complete their primary education. This problem of dropouts affects many African countries. They spend large amounts of money teaching children who do not stay in school on enough to acquire any qualification. In a study by Smith (2003), for example, it was discovered that fewer than one third of the boys and one tenth of the girls aged between 6 and 11 start school and one quarter of those who do start out during the first two grades. Girls are more likely to drop out in early stages than the boys. The average time spent in school by those who dropout is 2.7 years. In Mozambique, the situation was found to be even worse because fewer than half of those who enter grade one reach grade five. This situation seems to envelop other parts of Africa.

In Kenya, reintroduction of free primary education in 2003 drastically increased the number of children attending school. There are many objectives for the government of Kenya to invest in primary education. Amongst them are: enable the learners acquire literacy, numeracy, creativity and development of skills for self-reliance. In addition, primary education develops ability for critical thinking and logical judgment; to enjoy desire to continue learning; to appreciate and respect the dignity of work; to appreciate desirable social standards, moral and religious values; to develop into a self-disciplined, physically healthy person; to develop skeptic values and appreciate own and other people's culture; and to develop awareness of and appreciation for other nations and international community. This will enable learners to respect and love their country and the need for harmonious co-existence (Abagi, 2009). The launch of Free Primary Education (FPE) in 2003, has demonstrated high commitment in achieving EFA goals by increasing its continuous support of the FPE programme through regular funding. The Kenya

government allocated 17.4 % of its national budget to education even though there is still donor support according to World Bank (2004).

According to Nafula (2001), causes of drop-out vary from region to region, country to country, school to school and individual to individual. For instance, in the year 2010, school dropout rate in Kenya stood at 2.1% for boys and 2.0% for girls. This is clearly depicted by Mwaniki (2008) in his study carried out in Suba County which indicated that young men who dropped out of school enticed young girls with money earned from fishing and made them to also drop from school. Similarly, an earlier study by Kimondo (2007) indicates that the dropout rate of male pupils in primary schools was higher than that of the females. It notes that in early childhood up to standard four there is usually a balance between the two sexes but later the number of boy's declines. While there has been increased primary school enrolment in Kenya in recent years, the concern at the moment is with regard to the internal efficiency of primary education, particularly the ability to retain pupils until they complete the eight year cycle. There is sufficient evidence indicating that primary school dropout has escalated from up to 6.1% in 2012.

Kimondo (2007) further notes that of the Net Enrolment Ratio (NER) for boys and girls is 93.01%; however 55% of boys and 54.6% of girls reach primary four, while 31.2% of the boys and 27.7% of girls reach primary seven. Arguably, the problem of pupil dropout is quite unsettling especially to policy makers. This is partly because it reflects on the inadequacy of a schooling system in terms of either school quality or quantity. In effect, school dropouts are usually associated with high unemployment levels, low earnings, and poor health outcomes, and persistent poverty. Given the escalating drop-out rates of pupils and its effects on undermining national human capital development efforts, there is therefore a dire need to assess the strategies to address wastage in primary schools in Baringo County.

Statement of Problem

Failure to complete a basic cycle of primary school not only limits further opportunities for children but also represents a significant drain in the limited resources. It is, therefore, important to take into account the strategies to mitigate wastage in public primary schools Baringo County. In Kenya, a lot of money is spent by the Government in providing free primary education. But it appears that a substantial amount of this expenditure is spent on those who drop out of school. This is wastage of the scarce national resources because the drop-outs do not acquire the knowledge and skills expected of them. Any factor that interferes with pupil learning not only undermines the goals of education but also hampers the growth and development of the children. Despite these efforts, wastage in form of dropouts and repetition inhibits the realization of the set goals particularly the Universal Primary Education. Although the government is providing direct grants to public primary schools through the FPE financing scheme, wastage of education in form of dropout and repetition have continued to be perverse. Implementation of Free Primary Education in Kenya in 2003 was a milestone but wastage is a challenge towards its achievement. For this reason, there is a need to identify the

administrative strategies to address wastage in public primary schools in Arid and Semi-Arid areas with a focus in Baringo County.

Research Objectives

The specific objectives were:

i. To assess the school related strategies to address wastage in public primary schools.

ii. To identify the household and community related strategies to address wastage in public primary schools.

iii. To find out the educational policy and institutional processes to address wastage in public primary schools.

iv. To assess the student related strategies to address wastage in public primary schools.

Justification of Study

In Kenya, a lot of money is spent by the Government in providing free primary education. But it appears that a substantial amount of this expenditure is spent on those who drop out of school. The drop-out rate in the whole nation stands at 2.1% for boys and 2.0% for girls (Mwaniki, 2008). Early dropouts in particular relapse into illiteracy thus frustrating educational goals (Republic of Kenya, 2009). Dropping out is a multiple tragedy. This is because leaving school not only increases educational costs, but also leads to waste of human resources, teachers' and students' time. Any factor that interferes with pupil learning not only undermines the goals of education but also hampers the growth and development of the children. The study findings may be useful in providing profound knowledge about the strategies used by stakeholders in public primary schools in alleviating wastage in Baringo County. Theoretically, the study is expected to contribute to the advancement of knowledge about improvement of institutions internal efficiency in primary schools in Kenya. Further, results of the study will be of great significance because it may lead to improvement of strategies used by the government against the issues of repetition, absenteeism and dropout in public primary schools in Kenya.

Scope of the Study

The study determined the strategies adopted by school stakeholders towards eradicating wastage in public primary school in arid and Semi-Arid Areas with specific reference of Baringo County. This was achieved through assessing the education polices and institutional processes, school-based, house hold and community based and student-related strategies that may be used to eradicate wastage. The study targeted all the school stakeholders in public primary schools.

Literature Review

Factors that Influence Wastage in Schools

Mwaniki (2008) say that according to 2008 data, 61.0% of standard six pupils had repeated at least once and 23% had repeated twice or more. The authors also note that while repetition is against government policy, it is actively encouraged at schools due to the publication of league tables based on mean scores in the KCPE. He also notes that poor attendance leads to increased repetition and dropouts. Attendance rates are affected by health factors including the impact of HIV/AIDS and other diseases as well as the in ability to pay school levies.

A study by Kimondo (2007) found out that the HIV/AIDS incidence had led to many children being orphaned. There being no one to pay their fees, they eventually dropout. Another interesting finding from the study was that up to 82% of the drop-outs came from large families thus suggesting that the size of family is also important in determining a child's success in school. Many other reasons have been advanced to explain high dropout and repeater rates. First among these is the reluctance of many parents to educate girls when faced with a choice between educating them and educating their brothers (Wangui, 2008). This view is also supported by the findings in a recent survey in Kenya.

In Kenya, a significant improvement in access to primary education was witnessed during the inception of Free Primary Education (FPE) in 2003 by the government. The primary schools Net Enrolment Rate (NER) rose from 79.8% in 2003 to 91.6% in 2007. This was a commendable increase when compared to the targeted NER of 84.4 % for 2007, an increase of 7.2 percentage points (MoE, 2009). Primary school completion rate, 2002-2008 shows that the country has not yet realized the 100% completion rates due to wastage being experienced in primary schools (Republic of Kenya, 2009). Starting school on time will help complete primary education because delayed school entry is closely associated with increased risk of dropout. Late entry is associated with higher rates of repetition in early grades, which can increase the cost of education to households and weaken the internal efficiency of the education system (MoE, 2009).

Research Methodology

The study adopted descriptive survey research design. This study was carried out in Baringo County, Kenya and was identified because of the arid and semi-arid nature, which has led to increase in wastage over the years, despite the fact that studies causing drop out and repetition has been conducted in other counties. Baringo County has 349 Primary Schools. The primary school going age population is growing fairly rapidly. The county therefore needed to invest in the provision of education facilities to cater for the increasing demand.

The researcher targeted 349 schools, 6 Sub county DQASOs, 370 head teachers, 2960 teachers and 370 parents.

The researcher used Yamane Formula **n = N / [1+N (e) 2]** to calculate the sample size.

Where;

> **n** = the sample size
> **N** = the size of population
> **e** = the error of 5 percent
> n = 3700/1+3700(0.05)2
> n = 3700/1+9.25 n = 3700/10.25
> n = 361

From the Yamane formula above the sample size was 36 public primary schools. Simple random sampling technique was used to select the 36 public primary schools to take part in the study. Simple random sampling technique was used to obtain 289 teachers from the sampled schools. This sampling technique was used to select samples from the universe of teachers. Purposive sampling technique was used to select 36 head teachers and 6 sub-county DQASOs and 36 parents where children had dropped. The proportions were based on the total population of each sampled school. The sample size comprised of 289 teachers, 36 head teachers and parents as well as 6 DQASOs from the sampled schools.

Data was collected using of questionnaires for teachers and head teachers while structured interview schedule for parents and DQASO.

This study also made use of interview schedule to collect the required information. The interview schedule was administered to parents and DQASO officials of the sampled schools. The test-retest method was used in order to test reliability of the instrument. Cronbanch's Coefficient Alpha was used to determine the reliability of the research instrument.

Qualitative data were presented thematically. The themes emerging from secondary data were identified to augment primary data. Qualitative data were transcribed and organized into themes in order to check on their frequencies based on the research objectives. Qualitative data were analyzed using content analysis.

Pearson Product Moment Correlation was used to analyze quantitative data in order to understand relationships between different variables. Data were presented in tabular form using frequencies and percentages alongside inferential statistics. The level of significance was set at 95% or at a p-value of 0.05.

Findings

The purpose of this study was to identify the administrative strategies to address wastage in public primary schools in Arid and Semi-Arid areas with a focus in Baringo County. The study sampled 36 head teachers; 6 Sub-County DQASOs and 36 parents whose children had dropped, 289 teachers, 36 head teachers and parents as well as 6 DQASOs from the sampled schools. The study managed to collect data from 272 teachers and head teachers representing 94.1 per cent response rate. This

chapter presents the analysis, interpretation and discussion of findings.

Descriptive Results

The study results revealed that majority of the teachers were of the view that cultural impact/harassment favour pupils drop out of school. This implies that communities engage in outdated cultural practices because the education has not been relevant to their needs. FGM and early marriages are common among the girls who are in primary schools who are supposed to prepare for their KCPE.

The study results revealed that most of the teachers were of the opinion that high student-teacher ratio contributes more to school dropout in schools. This shows that pupil-teacher ratio is a significant measure of quality in education. In a school where the ratio is high learners may lack personal attention from the teacher while the less academic learners are likely to lag behind.

The study results on student related factors showed that majority of the teachers were of the view of lack of parents' educational awareness. This implies that pupils' characteristics are among most important factors that affects internal efficiency of schools. Students come to school with different characteristics that affect the students' level of participation and achieving in education. Parents' educational background affects the internal efficiency of schools.

The study found that enhancing dropout in schools is not the task of a teacher. This implies that it is the role of all school actors to reduce or alleviate wastage in schools that teachers are included. School actors comprise school administration, that is, the school head teachers, teachers, and school, community and education stakeholders. Community involvement with schools can improve education access, reduce dropouts and improve teacher attendance.

The study results on solutions for drop out in schools indicated that majority of the teachers were of the view of activating and strengthening guidance and counseling in schools. This shows that guidance and counseling supplement academic work and entire school life with a comprehensive programme geared towards a strategic objective of helping adolescents persist in school and obtain the maximum benefit of education.

The study performed inferential statistics specifically Pearson Moment Correlation to analyze quantitative data in order to understand relationships between different variables. This was appropriate to use because the instruments will be of interval and ratio-scaled variables. The study results were as shown in Table 1.

Table 1 *Relationship between Study Variables*

		School-Related Strategies	Household/Community Strategies	Educational Policy Processes	Student-Related Strategies
School-Related Strategies	Pearson Correlation	1	.499**	.795**	.651**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	272	272	272	272
Household/Community Strategies	Pearson Correlation	.499**	1	.565**	.300**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	272	272	272	272
Educational Policy Processes	Pearson Correlation	.795**	.565**	1	.500**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	272	272	272	272
Student-Strategies	Pearson Correlation	.651**	.300**	.500**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	272	272	272	272

** Correlation is significant at the 0.01 level (2-tailed).

The study results revealed that there was a statistically significant linear relationship between school-related strategies and household/community strategies (p=0.000); there was a statistically significant linear relationship between school-related strategies and educational policy processes (p=0.000); there was a statistically significant linear relationship between school-related strategies and student-related strategies (p=0.000); there was a statistically significant linear relationship between household/community strategies and educational policy processes (p=0.000); there was a statistically significant linear relationship between household/community strategies and student-related strategies (p=0.000); there was a statistically significant linear relationship between educational policy processes and student related strategies (p=0.000).

These findings can be interpreted to mean that in order to address wastage in schools, a number of factors, strategies and their linkages need to be investigated. School factors that dispirit students from continuing with their education, unattractive school condition policy irregularities are some of the examples that can act as push factor to students. The tendency for students to drop out is also associated with their school experiences such as dislike of school; low academic achievement; retention at grade level; the sense that teachers and administrators do not care about students; and inability to feel comfortable in a large, depersonalized school setting. There are many factors associated with dropout, some of which are

associated with the individual, such as poor health or under-nutrition and children's school motivation. Others emerge from children's household situations such as child labor and poverty. School level factors also play a role in increasing pressures to drop out such as teacher's absenteeism, school location and poor quality educational provision. The nature of educational policy process at the community level e.g. type of school, level of community support generates conditions that can ultimately have an effect on the likelihood of children dropping out from school. Both demand and supply driven factors play a role in the process of school dropout and therefore they should be addressed as one.

Regression Analysis

The study performed regression analysis to estimate the relationships among variables. In this case, the study performed regression to estimate the relationship between administrative strategies and wastage in schools.

The regression results indicated the simple correlation was 0.531 which indicates a degree of correlation. The total variation in wastage in schools was 28.2% explained by administrative strategies (R Square=0.282).

The study results further revealed that the regression model predicted wastage in schools significantly well (p=0.000b). This indicated the statistical significance of the regression model that was run and that overall the regression model statistically significantly predicted the wastage in schools (i.e., it was a good fit for the data).

The regression equation generated for the study was as follows;

Y (Wastage in Schools) = 2.913 (Constant) + 0.106 (School-Related Strategies) + 0.326 (Household/Community Strategies) – 0.356 (Educational Policy Processes) + 0.131 (Student Related Strategies) + 0.171 (Error)

Based on the results, there was a statistically significant linear relationship between school-related strategies and wastage in schools (p=0.019); there was a statistically significant linear relationship between household/community strategies and wastage in schools (p=0.000); there was a statistically significant linear relationship between educational policy processes and wastage in schools (p=0.000) and that there was a statistically significant linear relationship between student-related strategies and wastage in schools (p=0.000).

Discussion

The study results revealed that there was a statistically significant linear relationship between school-related strategies and household/community strategies (p=0.000); there was a statistically significant linear relationship between school-related strategies and educational policy processes (p=0.000); there was a statistically significant linear relationship between school-related strategies and student-related strategies (p=0.000); there was a statistically significant linear relationship between household/community strategies and educational policy processes (p=0.000); there was a statistically significant linear relationship

between household/community strategies and student-related strategies (p=0.000); there was a statistically significant linear relationship between educational policy processes and student related strategies (p=0.000).

Kimatu (2007) found out that school factors such as class size, incidences of sexual harassment and repetition contributed to wastage in public primary schools. She observed that when classes are too large, they result to overcrowding which in turn result to over utilization of facilities such as desks and textbooks. Tonkei (2008) found out that home factors that contribute to dropout among girls in primary schools had similar findings. She found out that school factors such as poor performance, peer pressure, understaffing, inadequate resources, repetition, over strictness of some teachers to be major factors that contributed to girls dropping out of school. Other factors included punishments, bullying by boys lack of motivation, inadequate facilities and truancy.

Munyiri (2007), observed that the effect of family instability on dropout was very high. These factors scored 80% among the head teacher, 90% among the guidance and counseling teachers and 66.4% by the pupils themselves. These findings show that pupils from unstable families were more likely to drop out of school than those from stable families. This is because the families do not provide proper follow up of pupils' academic progress and they are also limited financially. Munyiri (2007) observed that the parents of dropouts had poor education background. Majority of the parents were dropouts, some of the parents had primary education while others had never attended any school. Due to lack of education, most of the parents were peasants and so they could not support their children fully.

Obunga (2011) noted that the pupils dropped out due to parental preference of one sex over the other. They preferred the boy child education to girl child especially when the families were faced with economic hardships. She also noted that the pupils dropped out due to gender biases which existed in terms of gender roles and responsibilities. The girls did all the household work before and after school. Kabuku (2012) found out that there was no significant relationship between gender and dropping out of school. She also found out that cultural practices were not a factor that contributed to dropping out of school.

Conclusions

The study concluded that guidance and counseling supplement academic work and entire school life with a comprehensive programme geared towards a strategic objective of helping adolescents persist in school and obtain the maximum benefit of education.

Pupil-teacher ratio is a significant measure of quality in education. In a school where the ratio is high learners may lack personal attention from the teacher while the less academic learners are likely to lag behind. When classes are too large, they result to overcrowding which in turn result in over utilization of facilities such as desks and textbooks.

FGM and early marriages are common among the girls who are in primary schools who are supposed to prepare for their examinations. Majority of pupils may not be aware of their rights and the few who are aware are suppressed by outlawed cultural practices.

Lack of adequate educational resources in form of human resources, instructional materials and funds contribute to internal inefficiency in form of increased school dropouts, increased repetitions and poor performance.

Recommendations

The government through ministry of education should ensure that education is totally free to all children. This is because even after the introduction of free primary education, poor parents are still experiencing problems while catering for additional costs which could be exam fees, tuition fees and cost of uniform. The government should therefore explore means of alleviating these costs to reduce cases of dropout in the county.

The study recommends that teachers, parents and pupils be involved in efforts to address the school related factors leading to wastage in the county. Opinion leaders and intellectuals in the local community should be involved in addressing socio-cultural factors that contribute to education wastage in schools.

All schools in the county should ensure that they have a strong guidance and counseling programmes. This would help to reduce cases of early pregnancies and marriages. There is need to sensitize parents and the community as a whole on their roles towards education of their children.

There is need for the government to initiate school feeding programmes in order to reduce educational wastage due to hunger caused by poverty. Hungry and malnourished children have reduced capacities to learn, perform poorly and eventually dropout of school.

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