



Wastage in Public Secondary Schools: Strategies to Reduce Effects of Home - Based Variables in Kericho County, Kenya

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ABSTRACT

The gist of this study was to determine strategies for reducing home-based variables causing educational wastage in public secondary schools in Kericho County, Kenya. The specific objectives of the study were: first to profile the nature of educational wastage, second, to determine the home-based variables causing the educational wastage and, third, to devise strategies for reducing these variables. A descriptive survey research design was employed. Purposive sampling technique was used to select 10 principals and simple random sampling to select 25 teachers and 275 students, yielding a sample size of 320 participants. Questionnaires were used to collect data from students and teachers while interview schedules were used to collect information from teachers and principals. The instruments were pretested before fieldwork to determine their validity and reliability. It was established that the nature of educational wastage was rather complex and rampant in all classes in the study locale. It was revealed that the proportion of total wastage due to student dropout (PTWSD) ranged between 49.3% to 83.7% compared to the proportion of total wastage due to student repetition (PTWSR) at between 6.8% and 50.7%. The main factors responsible for repetition were ranked in decreasing order of magnitude as: child labour, absenteeism, negative peer influence, and lack of parental support of school development projects. The recommended strategies to alleviate the negative trend were: key stakeholders, especially the parents and community members should be sensitized to support school development projects; and Board of Management in schools should put in place early identification procedures to retain students who are likely to drop out of school because of school fees and other home-based bottlenecks.

1. INTRODUCTION

1.1. Background of the study

The now well-established approach of Education for Sustainable Development (ESD) empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society for present and future generations. Nonetheless, these noble expectations cannot be achieved in situations where the efficiency of the education system is questionable (Orodho, 2017a; UNESCO, 2017). The term—wastage is used within the field of education to describe various aspects of failure of an educational system to achieve its objectives (Yusuf, 2014). Wastage can also be viewed as failure of students to attain the qualifications they had registered for in a given course (Akindele 2015; Charles, 2013; Mohammed & Muhammed, 2011).

Wastage, especially in educational institutions, has caused a great concern to government and society as a whole (Clive, 2008; Musangi, Mulwa, Migosi & Kamau, 2017; Yusuf, 2014). According to Ajayi & Mbah (2008), wastage arising from repetition and drop out is a sign of internal inefficiency in the education system. UNESCO (1970) conceived wastage to include drop outs, repeaters, premature withdrawal from schools and non-employability of school leavers. What is being wasted is human learning, school buildings and equipment and the labour of teachers. Graduating at secondary education level is important in development. It empowers individuals to realize more productive lives and is also a primary driver of national economic development. Receiving a good education is the lifeline by which many youths can lift themselves out of poverty (Mutwota, 2013; Deribe, Endale, & Ashibir, 2015). The effect of home-based factors on educational wastage cannot be overemphasized. Orodho (2013) argues that there are multifarious and intertwined home –based factors compromising internal efficiency in public secondary schools in East Africa. It is against this background that this study which sought to establish the causes and strategies to reduce the causes of wastage was premised.

1.2 State of the Art Review

A global overview of educational wastage indicates that wastage is a real challenge that many countries of the world have been trying to curb. In the United States of America, for instance, the high school dropout rate is alarming. A study by David and Jefferson (2010) during the 2007-2008 period in the California Department of Education estimated that 98,420 public high school students dropped out of school. These data suggest that about 19 percent of California high school students in any ninth-grade class would more likely drop out over a four-year period. Further, the dropout rate was

particularly acute among the state 's largest minority student populations. An estimated 33 percent of African Americans and 24 percent of Hispanics would drop out over a four-year period (David & Jeffrey, 2010). This source further explains that the economic and social consequences of the dropout crisis are profound, particularly in those minority communities whose children drop out of high school at disproportionately higher rates (Flaunters & Rugus, 2007; Matage, Kyalo & Shadrack, 2014).

Research demonstrates that dropouts suffer more joblessness, earn less income, and tend more to criminality, public dependency, and poor health than successful high school graduates. In developing countries, wastage is also widespread. This creates a serious situation because the funds available for educational development are limited and their effective use is considerably reduced by wastage. Gatawa (1998) argued that while developing countries have done remarkably well in terms of expanding educational access to a large percentage of their school going population, school performance as measured by dropout rates, progression rates and examinations results has been quite discouraging. Most African countries are faced by the educational wastage problem and have come up with various initiatives to curb the problem (Barineka, 2011; Orodho, Waweru & Getange, 2014). For example, Nigeria, has adopted the education sector as one of the pillars of poverty reduction. It is argued that wastage is an unprofitable and uneconomical utilization of time and resources (Adamu, 2000; Audrey, 2009; Ajayi & Mbah, 2008; Oyekatin, 2011).

We need not overemphasize the fact that as the post-2015 goal-setting process continues, education has increasingly been discussed as not only a development goal in its own right, but also as a key way of reaching other development goals (United Nations, 2013). And for a good reason a country that provides free access to quality education for all its citizens is far more likely to reduce poverty, promote economic growth, lower child and maternal mortality and achieve social inclusion (Rose, 2013; United Nations, 2013). The importance of education and learning is adroitly highlighted in the Recent Draft Executive Summary for the United Nations World We Want Post-2015 Global Consultation on Education positions education as both a human right and the foundation for development (United Nations, 2012, 2013).

In fact, Liu (2004) carried out qualitative research in two rural communities in the North of China, in particular focusing on drop outs at secondary level and carrying out interviews with drop outs and the families of drop outs. Among the reasons put forward for dropping out were was perceived future prospects or lack of them, school failing to provide impetus/motivation for continued study and youngsters admiring the lifestyles of contemporaries who had already left. More specifically, parents indicated the youngsters were 'tired of study,'

with schools being 'no fun'; there was little hope of entering university; and if they did graduate from university, few prospects afterwards; youngsters admired those working in the city with most dropouts going to the city to work soon after they left school; and they were persuaded by parents to leave.

Since Kenya attained her political independence nearly five decades ago, the Government of the Republic of Kenya, households, communities and the private investors have strived to enhance the development of education in the country. Such investment has been in line with the philosophy spelt out in the Sessional Paper No. 10 on African Socialism and its Application to Planning in Kenya, (Republic of Kenya, 1965). The efforts of various players in the education sector have been guided by the various policy documents such as National Development plans and Sessional Papers (in particular Seasonal Paper No 10, 6,1 and 2 of 1965, 1988, 1992 and 1996 respectively. This implies that any wastage among school students leading to non-completion of programs may jeopardize the main objective of education as a socio-economic factor for development.

The Constitution of Kenya (2010) unequivocally promises all Kenyans unprecedented opportunity to capitalize on the progress made thus far in order to exploit the full potential of education for each and every child, youth and adult in the nation (Republic of Kenya, 2010a, 2012a, and 2012b). In addition, the Basic Education Act of 2013 reiterates the fact that basic education which has been made free and compulsory in Kenya should be operationalized through the legal framework enshrined in the Act (Republic of Kenya, 2012a). Both the Constitution (2010) and Basic Education Act of 2013 guarantee and provide legal mechanisms of ensuring that every Kenyan citizen gets access to basic education and other economic and social rights that hinge upon the citizens access to, and performance in, education, as much as on the application of knowledge, attitude and skills gained through the educational experience (Republic of Kenya, 2010b, Republic of Kenya/UNESCO, 2012; UNESCO, 2012; World Bank, 2012; Republic of Kenya,2013; Waweru & Orodho,2013).

Vision 2030 of Kenya is also looking upon education to deliver the necessary skills and build adequate human capital to achieve and sustain the country as a middle-income country (Republic of Kenya,2012). The fundamental aim of this vision is to have a globally competitive and prosperous country, with high quality life by 2030 and transform the country into a newly industrialized middle level income country providing quality life to all its citizens in a clean and secure environment. Educational wastage has serious implications to the attainment of Vision 2030. Indeed, to achieve the Vision 2030, a lot needs to be done to reduce all forms of education wastage. Measures should be put in place to reduce and eventually eradicate wastage. In addition, effort should be put into improving the grades of graduating students to ensure higher

transition rates to tertiary education. Solving the problem of wastage is important in every part of the world (Musyimi ,2012; Orodho, Waweru, Ndichu, & Thinguri, 2016) .

1.3. Statement of the Problem

Despite many policies and strategies developed to enhance a smooth transition rate in school, there are still students who withdraw from school prematurely. This is happening against the backdrop that the Universal Declaration of Human Rights, Article 26, for instance states categorically that everyone has the right to education (UNESCO, 1998) and the United Nations post 2015 agenda stresses that no one should be left behind in any development enterprise (United Nations,2015; World Bank,2012) To achieve this, the Kenyan government laid two policies and allocated money in the National budget to provision of education to her people (Republic of Kenya,2012a)

In addition, the growing importance of the knowledge economy has profound implications for the role of education as a determinant of economic growth. Increasingly, countries' ability to compete in the global economy and to respond to existing and emerging challenges depends on their education systems' ability to impart foundation skills, which enable further learning, and to impart transversal skills, which foster mobility. Therefore, it is more important than ever for economic growth strategies to be underpinned by an education and training system which develops a literate and trainable workforce (UNESCO, 2014).

The government through the Ministry of Education has come up with the fees guidelines which are aimed at making secondary school education affordable to many Kenyans thus reducing drop outs. However, records at Rongai District Education officer's office indicate that the dropout rates are still rampant in the District. The records show that in the year 2011 alone, two hundred and sixty-two students dropped out from seventeen selected co-educational public day secondary schools. In fact, it is clear that forty-two students had dropped out from one school. However, the influence of home-based factors on dropout rates had not been documented but just the figures of dropout rates. This study was thus set to ascertain the influence of home-based factors on dropout rates of students in co-educational public day secondary schools in Kericho County, Kenya.

1.4. The Purpose and Objectives of the Study

The gist of this study was to determine strategies for reducing home-based variables causing educational wastage in public secondary schools in Kericho County, Kenya. The specific objectives of the study were to:

1. profile the nature of educational wastage,
2. determine the home-based variables causing the educational wastage and,
3. devise strategies for reducing variables causing wastage.

2.0 DESIGN AND RESEARCH METHODOLOGY

2.1. Research Design

The study adopted a descriptive survey design. Descriptive survey is a method of collecting information by interviewing or administering questionnaires to a sample of individuals (Orodho, Wenceslas, Odundo, Waweru & Ndayambaje, 2016). A survey is normally employed in research to describe attitudes, beliefs, opinions among other personal attributes (Orodho, 2009; Wambalaba, 2009). According to Orodho (2012), survey research is a self-report study which requires the collection of quantifiable information from the sample. Survey was preferred because it was deemed suitable for obtaining information on existing phenomenon in regard to home and school-based factors that lead to educational wastage in secondary schools within Kericho County.

2.2. The Study Location

This study was conducted within Kericho County. Kericho County is one of the 47 counties created under the Constitution of Kenya in 2010. The county is home to the Kipsigis people who are part of the Kalenjin community and Kericho town is its headquarters. As per the national census of 2009 the county has a population of 758,339 persons. Kericho County was selected for the study because it is one among the 47 Counties in Kenya with the highest forms of educational wastage in secondary schools in terms of poor performance in National Examinations (KCSE), dropout of students and repetition rates. This has raised great concern among the parents, stakeholders, the religious organizations and political class who hail from the area. The concerns that were raised in this County were used for discussions of finding the long-lasting solutions for alleviating the high level of educational wastage in secondary schools in the County.

2.3. Target Population and Sampling Procedures

The target population comprised County secondary schools, District/Boarding secondary schools, Day secondary schools and District Mixed secondary schools. The County has a population of 154 secondary schools, 2750 Form Three students and 250 teachers. The researcher used the table of random numbers to select 10 secondary schools to serve as a unit of study. Purposive sampling was utilized to select one principal per school yielding 10 principals on the criterion that there is only one principal per school. From each school, 10% of the teachers per school yielding 25 teachers. The study also selected 10 % of the 2750 Form III students yielding a student sample of 275. The entire sampling process yielded a sample size of 320 subjects for the study as illustrated in Table 1.

Table 1: The sample Determination

Respondents	Target	Sample
Schools	154	10
Students	2750	275
Teachers	250	25
Principals	154	10
Total	3308	320

2.4. Research Instruments and data Collection

The researcher adopted questionnaires and an interview guide to collect data from the principals, teachers and students on factors contributing to educational wastage in Kericho County. The research instruments were piloted to determine their validity and reliability. Orodho (2017b) defines validity as the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. Validity therefore checks if the research instruments are achieving what they were intended to do. The validity of the instruments was determined by expert peer review. Reliability is the consistency of the instruments in measuring what is intended to measure (Frankel & Wallen, 2007; Orodho, et.al. 2016). It is a measure of degree to which such instruments yield consistent results after repeated trial. The researcher used split-half technique in investigating the reliability of the instruments. A split-half co-efficient of 0.78 was obtained and considered substantially high enough to determine the reliability of research instruments. According to Orodho (2017b), a co-efficient correlation (r) of about 0.75 and above should be considered high enough to judge an instrument as reliable. The researchers' value was 0.78 and the instruments were adopted for data collection (Orodho, Khatete & Mugiraneza, 2016).

2.3 Data collection and Analysis

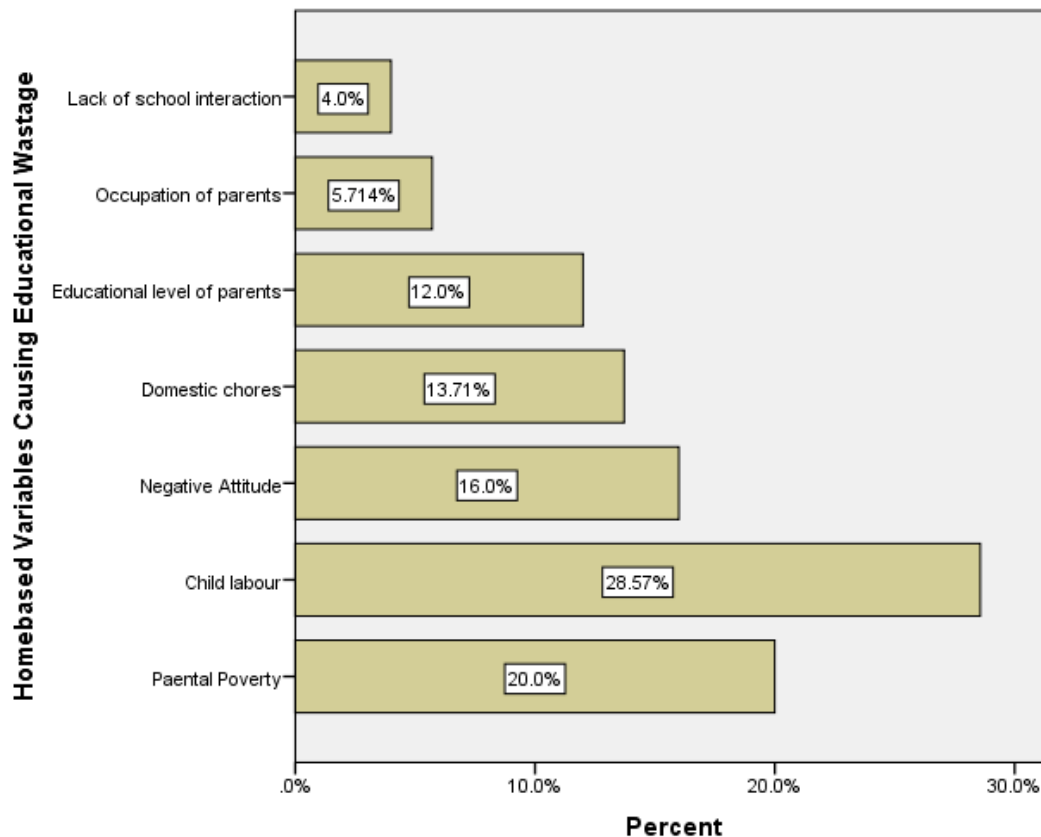
A research permit was sought from the National Council for Science, Technology and Innovation (NACOSTI) prior to data collection in schools. The questionnaires were then distributed to teachers and students according to the itinerary made in the specific schools sampled for the study. The principals were interviewed in their respective offices on the agreed date as well as observation of key areas of interest according to the observation schedule to collect data from the principals, teachers and students. Descriptive statistics was used to analyze qualitative and quantitative data by employing the use of the Statistical Package for Social Sciences (SPSS), which could manage huge amount of data (Orodho, Ampofo, Bizimana & Ndayambaje, 2016). The qualitative data were analyzed using thematic and narrative analysis.

3. FINDINGS AND DISCUSSION

3. 3.1. The Home-based Factors causing Educational Wastage

Figure 1 depicts the outcomes of analyzed responses from students and teachers regarding the possible home-based variables contributing to wastage in the study locale. A scrutiny of the figures contained in the figure indicates that the two most widely causative

factors were child -labour and poverty representing 28.6% and 20% of the total, respectively. It is therefore apparent that the two factors comprise nearly half of the responses of the whole sample. Negative attitude and or low premium attached to education, especially of the girl-child was also cited by about 16% of the respondents. This was followed closely by low educational level of the parents, especially of their mothers and low occupational status of household members including older siblings at 12% and 5.7%, respectively. The other variable which featured was the lack of close interaction between the parents/community and the school.



The foregoing factors causing wastage are therefore seen to be highly interrelated and tend to point to the fact that most communities lack the empowerment and enabling environment to encourage high educational access, retention and participation. There is little doubt that an enabling environment empowers the parents and the community to drive the education development agendum. It empowers individuals and the community in general to realize more productive lives and is also a primary driver of national economic development. The finding is in line with several scholars and researchers regarding the influence a well thought out educational provision. For instance, receiving a good education is the lifeline by which many youths can lift themselves out of poverty (Mutwota, 2013; Deribe, Endale, & Ashibir, 2015). The effect of home-based factors on educational wastage cannot be overemphasized. The

results are also in tandem with Orodho (2013) who earlier argued that there are multifarious and intertwined home –based factors compromising internal efficiency in public secondary schools in East Africa.

The planned strategies to alleviate Wastage

The teachers were requested to indicate the most viable strategies that could be put in place to reverse the home-based-factors which were adversely affecting education in the study locale. Their responses are recorded in the pie-chart displayed in Figure 2.

A close examination of the factors reveal that strategies should be undertaken in the steps. The first step should be to design and provide an information tool-kit enlightening the parents and community on the importance of education. This should be followed by an

enforcement of the child-labour law to ensure the children are taken to school and retained as a basic human right.

Figure 2: Strategies to eradicate educational Wastage

The second step should be to disseminate the importance of the education through seminars arranged at village level bazaars and market places to enable parents come together and discuss the plight of their children. Through such an approach, the community could be informed about best practices elsewhere. These interactions schools also slowly introduce the importance of creating school-community networks involving teachers and parents.

The final point should involve the practical empowerment of communities through encouraging them to undertake income-generating activities to supplement the income from meagre employment. This empowerment should be able to assist the communities to support current efforts aimed at achieving 100% transition from primary to secondary and sustain such trend in higher levels of education.

For the purposes of illustrating the components of variables causing wastage in secondary schools, the relative frequency of responses was used to indicate levels of cause-effect qualitatively without using statistical approach. This assumption explains the connection the researches made regarding relationship between the "community or home-based values such as family support and "improved learning for children. We assume, based on the enthusiastic response and level of investment by both parents and organizations to the collaborative effort of the planning process, that continued collaboration and support for family learning that will lead to decrease in educational wastage.

In addition, this study emphasizes the realization of the collectively designed institutional changes in welcoming practices and program improvements will contribute to greater home-based/community support for family learning. It is arguable that many of these assumptions draw on theory from academic research. Since there was not much in the way of academic theory for our team to use, members grounded their assumptions in locally generated empirical evidence as much as possible. Throughout the discussion the study blended researchers own insights with data collected during the planning stage from parents and other stakeholders

4. CONCLUSION AND RECOMMENDATIONS

4.1 Conclusions

Based on the findings of the study, it is concluded that the general retention rate in all classes of secondary

schools studied was 78% and above for all cohorts in Kericho County. The Proportion of Total Wastage due to Student Dropout (PTWSD) was 49.3% to 83.7% as compared to Proportion of Total Wastage due to Student Repetition (PTWSR) that was 6.8% to 50.7%.

Poor performance was found to be associated with Mixed Day Schools; the mixed day schools performed worse compared to County/Boarding, District/Boarding schools or day/boarding schools. Early and late starting of school was found to be a major factor contributing to wastage according to the teachers. Additionally, drug abuse, lack of job opportunities and being orphaned before completing school are other factors mentioned. The reasons given for wastage were predominant in Day Schools and in Mixed Day Schools. While the main factors responsible for repetition were thought to be child labour and poor academic performance, those responsible for dropout were inability to pay school fees and peer influence. The role being played by school management to reduce wastage include the provision of library facilities which were found in all boarding schools, boys schools and girls schools but some day schools, Day/Boarding Schools and Mixed Schools did not have libraries, and where available, not all of them were well stocked.

From the findings it was noted that majority of the parents were not employed and hence they engaged in subsistence farming to ensure that they sustain their children in schools and also to get money to pay for the required school levies. It is apparent that the education levels of the parents have really affected the academic performance of pupils in Kericho County.

Most of respondents reported that most parents did not have formal education and hence they neither assist their children at home nor encourage them to work hard to pass their exams. Research studies have indicated that if parents possess high levels of formal education and have stable income from gainful employment then, their children will be motivated to work harder too as they imitate their parents.

Child labor and household chores was also found to affect academic performance of learners because pupils are forced to be out of school to attend to household chores for survival. It was evident that majority of these parents were either involved in tea picking which is not economically rewarding or petty business. The wastage due to poor performance in Kericho County can also be attributed to high poverty levels of the household hence minimizing the chances of students attending schools and lastly misses classes and obtains low grades.

The family set up and structures has been known to be one of the factors that influence academic performance in our public schools because children from single parents' households are mainly poor hence making them unable to pay school levies. These factors are barriers to the academic performance and are part of the contributing factors to the observed wastage in public schools. It is therefore necessary to address these

challenges so that the noble idea of providing education for all eligible learners irrespective of age, socio-economic status, religion or gender remains the driving goal of educational provision not only in Kericho, but also in other counties experiencing similar challenges in Kenya.

4.2. Recommendations

Based on the findings of the study, the following recommendations were made: -

1. The government of Kenya to enforce the act of children's rights so that it protects them from issues of child labor and other home-based mistreatments that may hinder them from performing well in their academics.
2. The Quality Assurance and Standards officers from the Ministry of Education, Republic of Kenya to enforce close supervision and inspection of secondary schools by both the community and school administration in order to ensure that pupils are taught right content and the syllabus covered well and special attention given so that all pupils can improve in their performance.
3. Head teachers and teachers to conduct guidance and counseling sessions so that they can guide, encourage and motivate the pupils to work hard and teach them their rights so that they can know what to do in case they are violated.
4. The head teachers should conduct frequent meetings with the parents to sensitize them on the need to provide quality education to their children. He/she should also invite motivational speakers to address the issue of ignorance to the parents.
5. School management committee should consider creating good learning environment for the children to maximize their time in school so that they can compensate the time lost when at home because of the home-based factors.
6. The Ministry of Education, Science and Technology should introduce sex education targeting both parents and students in secondary school level geared towards lowering the number of pregnancy - related dropouts cases as well as increase the level of parental involvement in their children's education.
7. The government of Kenya should reinforce its policy that ensures automatic promotion of students to the next classes which will eliminate repetition.
8. For those who drop out of school because of school fees, there should be a procedure for early identification of vulnerable students by the school management and process of ensuring that they get a bursary from the government in good time so that they are able to complete their secondary education.
9. The Board of Management of schools to initiate a social focused advocacy campaigns designed to deliver the right message using the right

messengers and the right vehicles at the right time regarding importance of education.

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