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RESEARCH ARTICLE

FACTORS THAT INFLUENCE GENDER STREAMING OF KENYA CERTIFICATE OF SECONDARY EDUCATION (KCSE) IN PUBLIC SECONDARY SCHOOLS IN BARINGO COUNTY, KENYA

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ABSTRACT

The purpose of the study was to determine the implications of gender streaming on the Kenya Certificate of Secondary Education performance by students in Baringo County, Kenya. The study employed a descriptive survey design with a sample comprising 48 principals and 240 teachers. Data was collected using questionnaires and analysed by use of descriptive and inferential statistics. Based on the study, this paper discusses the factors that influence gender streaming on performance of Kenya Certificate of Secondary Education (KCSE) in Baringo County. The findings indicated that gender streaming influenced students' performance in KCSE. The findings also revealed that there was no significant relationship between gender streaming and performance across all categories of schools. The findings further revealed that teachers had a positive perception towards gender streaming and students' academic performance. Based on the findings of the study, it was concluded that much emphasis on girls' education had improved their performance. It was also concluded that there was no significant relationship in gender streaming and performance in various categories of schools. Majority of the head teachers stated that the performance of girls, compared to boys, in mixed classes was better. Correlations for gender streaming and academic performance indicated a very strong positive relationship between gender streaming and student performance in secondary schools. The study also concluded that teachers had a positive perception towards the influence of gender streaming and students' academic performance. The study recommended that the government, through the Ministry of Education, should seek for ways to enhance secondary school administrators to improve students' performance. Taking the limitations and delimitations of the study, it was suggested that a study on why the boy child lack of empowerment is consistent cause of poor performance among them should be carried out.

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INTRODUCTION

Gender Streaming in Secondary Schools

In recent years, attention has been given to the differences in academic performance of adolescent boys and girls. Although there is clear evidence (DEETYA, 2000) that boys are performing at a lower level than girls, there is less certainty about how this issue can be redressed. Some educators believe that the academic and social needs of boys and girls can be more adequately met in single gender classes. This notion has been the genesis of gender streaming. The 52nd Session of Economic and Social Council (ECOSOC) (1997) defines gender streaming as "the process of assessing the implications

for girls and boys of any planned action, including legislation, policies or programmes in all areas and at all levels". It is a strategy for making both boys' and girls' concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that girls and boys benefit equally. The ultimate goal of gender streaming was to achieve gender equality. Therefore, the understanding and commitment to gender streaming has increased significantly within the United Nations (United Nations, 2002). Research on gender perspectives, including fact sheets on the concept underlying gender streaming (UN, 2002), note that it is important to point out that the strategy of gender streaming does not in any way preclude the need for specific targeted interventions to address girls' empowerment and gender equality.

Research in economic growth and education shows that failure to invest in girls' education contributes ultimately to lower the

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Gross National Product (GNP). Everything else being equal, countries in which the ratio of female to male enrolment in secondary education is less than 75% can expect GNP levels that are approximately 25% lower than those countries in which there is less gender disparity in education. Gender inequality also negatively affects the productivity of the next generation (World Bank Report, 2006). Moreover, studies have shown that the probability of children being enrolled in school increases with their mothers' educational levels. The studies further reveal that extra income going to mothers has a more positive impact on household nutrition, health, education of children than extra income going to fathers. Government and other actors should promote an active and policy of streaming of gender in all policies and programmes so that before decisions are made an analysis is made of the effect on girls and boys (Beijing Platform for Action, 1995).

The focus on gender streaming reiterated throughout the Beijing Platform for Action emphasizes the importance of considering the impacts on girls and boys and on equality objectives of actions taken in every sector, for example the World Bank (1996). Progress report on the implementation of its gender policies indicated that since 195, there had been increased lending for education programmes benefiting girls reflecting the Bank's recognition that educating girls was one of the most important steps in promoting economic growth and development. The education of girls is particularly important given their roles as homemakers and care-givers to children. Statistics show that educated women have smaller manageable families, and as such, fewer of their children die at infancy and those who survive have better access to good health and education facilities. Moreover, educated girls have better chances of finding employment which is critical for the welfare of their households and societies. The education of girls is, therefore, an important investment, especially considering the precarious economic contexts in which developing commonwealth countries have to provide education. Recent studies on gender and education by World Bank (2006) indicate that education in its many facets of literacy, classroom instruction, curriculum, enrolment, attendance and achievement patterns, and teacher training play a significant role in perpetuating gender inequalities. The concept of gender streaming had developed out of a historical background with efforts to advance learning for girls and boys. Boserup (1970) used data on the development projects in developing countries to highlight the differential impact on girls and boys in development and modernization strategies. In response to this, liberal feminists in the US advocated the use of legal and administrative reform to ensure that women and their concerns would be better integrated into the economic systems. This led to the development of the Women in Development (WID) approach, based on the rationale that women constituted large untapped resources which should be recognized as being valuable in economic development.

The thinking behind the WID approach was strongly affected by the "trickle down" and "human capital" development theories of the 1960s and 1970s (Moser, 1989). These theories were based on the assumption that heavy investment in education systems and in the development of highly trained workers and managers would result in the transformation of

"backward" predominantly agricultural societies into industrialized and modern societies. The resultant improvement in living conditions, wages, health services and education would trickle down to all sectors of society. It was thus assumed that girls and boys would benefit equally from these changes. It has been noted that planning using WID approach is much more regular than gender planning it is less threatening (Moser, 1989). The WID approach is, however, an add-on rather than an integrative approach to the issues of gender planning.

The WID approach addresses some of women's and girls' needs. However, it does little to break down existing stereotypes and male oriented cultural patterns. This has been attributed to the fact that although in many countries, women's bureaus and ministries have been established, the decision-making processes are still largely male dominated and gender blind. When gender planning is being done, there is still a tendency to make it simply an add-on in every activity which also perpetuates gender stereotypes (Moser, 1989).

The Commonwealth Plan of Action and Development (1994) set a strategic objective of member governments to "take positive action to provide equal opportunities in educational institutions..." various theories have been propounded to explain the complex process of gender socialization. Gender role socialization begins in the family. Nursery and primary schools then continue the process as well as play a part in constructing gender role socialization throughout their organization and practices. These processes and practices are then continued by the secondary and tertiary education systems as children progress in different ways into adolescence to adulthood. The media, social interactions with peers and other factors also contribute to gender socialization process (Mearor and Sikes, 1992). Three different feminist perspectives on gender and education have been identified, namely the liberal, socialist and radical perspectives (ibid.).

In the liberal view, education replaces ignorance and prejudice with knowledge and enlightenment. The major concern is with girls being allowed equal access to education and equal opportunities in educational settings. The socialist perspective involves a commitment to social change with the objective of eliminating social class inequality as well as gender inequality. Schools are seen as reproducing the status quo. It is concerned with the way in which education reinforces inequalities. The radical perspective works towards reforming the power relationships between girls and boys in the classroom where it is assumed that boys dominate the classroom to the girls' detriment. The curriculum in this view is geared towards boys' interest and teachers are bound to favour boys over girls. Sexual harassment of girls by male students and teachers is another concern. There are persistent sex differences in education processes within the schools based on cultural beliefs about sex differences between boys and girls in both character and ability. Females and males are subjected to different socialization in mixed classrooms and are rewarded for different things. Girls learn to be docile and subservient instead of independent and thoughtful (Commonwealth, 1999). The distinction between girls' knowledge and boys' knowledge is deeply ingrained in the curriculum. Girls' knowledge has been

vocational, designed for practicalities of being a woman designed for the private sphere. Differential learning pervades the curriculum. There was a widespread built-in assumption that practical subjects for girls should relate to their future roles as mothers and homemakers, while boys are more likely to need preparation for entry into the world for formal employment.

Frequently, different subjects are provided for girls and boys (Commonwealth, 1999). These differences can be maintained through tradition and custom. For instance, adolescent girls may avoid mathematics and science courses and have lower achievement scores in these areas; they may be less prepared to enter the academic high schools once reserved for boys. The government of Zambia's National Policy on Education (1995) provides a good example of gender education into education policy. The ideological framework is set in the preamble of the policy, where a commitment to gender equity in terms of two critical indicators; school enrolment and school management is stated. In Sri Lanka, the Maldives and Bhutan have adopted policies of systematic gender streaming in education based on resource distribution and institutional provision that have had a positive impact on girls and boys.

Factors Influencing Gender Streaming

Gender roles and equality are policies to ensure that girls and boys share equitably in the designing, planning, decision-making, management, administration, delivery of education and performance. While the approach addresses some of girls' needs, it does little to break down the existing stereotypes and male oriented cultural patterns. In many schools, authorities still have difficulty accepting gender as an important planning issue.

Cultural Beliefs

There are persistent sex differences in educational processes within the school based on cultural beliefs (Measor and Sikes, 1992). Females and males are subjected to different socialization in mixed classrooms and are rewarded for different things. Females tend to learn femininity instead of masculinity, for example. They learn to be docile and subservient, instead of independent and thoughtful. Most girls underestimate their own academic abilities and believe boys are relatively superior to and more intelligent than them, especially in handling complex subjects (Mondoh, 2001). This stereotypical perception gives boys an air of superiority to girls in studies (Githua, 2002).

Parental Attitudes

Parents need to understand that girls' education consider will better their lives as homemakers and key players in the social, economic and political development of society. Therefore, it is important for parents to develop positive attitudes towards the education of their daughters. On the other hand, career counsellors have also tended to hold traditional attitudes about the occupations appropriate for female and male students, thus discouraging women emancipation and instead channelling women towards sex-stereotyped occupational choices. This has

also affected the employment of educated women, as some employers never hire women in general. The attitudes of parents, teachers and career counsellors also influence the self-concept of girls in school. The result has always been poor performance among girls in schools.

Sex-based Harassment

Sex-based harassment is based on the presumption of power relations which discriminate against girls in mixed schools. It relegates girls to an inferior position relative to boys. Girls feel embarrassed, frightened, hurt or uncomfortable (Commonwealth, 2002). The abuses which girls get from boys in mixed gender classes and lack of sanctions applied to boys make girls feel guilty and stigmatised (Commonwealth Secretariat, 1999). Girls are victimized at school when the curriculum, teaching and organizational structure of school does not meet their needs. Because of these problems, girls end up performing poorly in their academics. Other problems that school age going girls experience include pregnancy, getting overworked with domestic chores, domestic violence, problems relating to health and adolescence, all of which lead to their poor performance in examination (Measor and Sikes, 1992).

Statement of the Problem

In recent years, secondary schools in Kenya and especially Baringo County have been gender streamed. However, the implications of this policy on students' performance in Kenya Certificate of Secondary Education (KCSE) have not been well documented. Based on the background information, it was not established whether there was a relationship between gender streaming and performance at KCSE by both boys and girls. Therefore, this study set out to ascertain the influence of gender streaming on Kenya Certificate of Secondary Education (KCSE) in Baringo County.

MATERIALS AND METHODS

The study was carried out in Baringo County in Kenya. The study employed a descriptive survey research design. The design was intended to produce statistical information about aspects of education and researches that interest policy makers. The target population was all the 54 secondary schools in Baringo County as the recorded showed at the time of study (MOEST, 2004). The respondents comprised head teachers, subject teachers and students of these schools. Schools were selected across types which included mixed gender, boys' only and girls' only schools. Based on the guidelines provided by Kathuri and Pals (1993), a sample of 48 was selected from a population of 54 schools using stratified sampling technique. These consisted of 8 boys' only, 14 girls' only and 30 mixed gender secondary schools. Five (5) teachers and 2 students were randomly selected from each sampled school yielding totals of 240 teachers and 96 students. The study sample also comprised 48 teachers, meaning the total number of participants was 384.

Data for the study was collected using questionnaires designed for the various types of respondents. The study yielded both qualitative and quantitative data. Qualitative data was analysed

using descriptive statistics while the quantitative data was analysed using inferential statistics, specifically the Pearson Correlation Coefficient and regression analysis. Data analysis was also facilitated by the use of the Statistical Package for Social Science (SPSS) version 17.0 computer program. The data was then presented using tables, pie charts and graphs.

RESULTS AND DISCUSSION

The study sought to establish the implications of gender streaming on KCSE performance. The ultimate goal of gender streaming was to achieve gender equality in schools. It emerged following the Fourth World Conference on Women held in Beijing in 1995. Gender streaming was considered a necessary strategy to enable women and girls receive equitable access to assistance programmes and packages, and therefore a necessary component of all gender related interventions. In order to maximize the impact of gender streaming efforts, it should be complemented with activities that are directly tailored for marginalized segments of intended beneficiary groups (52nd Session of Economic and Social Council [ECOSOC], 1997).

Factors that Influence Gender Streaming in Secondary Schools in Baringo County

The respondents were asked to indicate the factors that influence gender streaming in secondary schools in Baringo County. The responses were as shown in Table 1 below.

Table 1. Head Teachers' Responses on the Differences between Girls and Boys

Response	Frequency	Percentage
Boys are more serious than girls	8	17.8
Girls become preoccupied with adolescence	19	42.2
Boys dominate girls	9	20.0
Girls have been empowered more than boys	6	13.3
Boys are undisciplined		6.7

Data showed that 8(17.8%) of the head teachers said that boys are serious than girls which attributed to the difference that exists between girls and boys at KCSE, 19(42.2%) of the head teachers said that girls become occupied with adolescence, 9(20.0%) of the head teachers said that boys dominate girls while 6(13.3%) of the head teachers said that girls had been empowered more than the boys. These findings disagree with the views of Gilbert and Gilbert (1998), Lillico (1999) and Warrington and Younger (1999) who observe that ambience of the classroom was heavily influence by boys. The results indicated that due to these factors, there was a necessity to have gender streaming so that gender equity could be achieved. These findings are in line with what Kamau (2008) has found that gender streaming was the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It was a strategy for making women's as well as men's concerns and experiences in integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men benefit equally and inequality was not perpetrated.

The head teachers were further asked to indicate the factors that influence gender streaming in secondary schools in Baringo County. The findings were as presented in Table 2 below.

Table 2. Head Teachers' Responses on the Factors that Influence Gender Streaming in Secondary Schools in Baringo County

Responses	Frequency	Percentage (%)
Domestic Chores: Gender streaming has helped girls perform better because when streamed, they learn more	26	57.8
Empowerment: Girls have been empowered than boys hence perform better	19	42.2
Total	45	100.0

The findings in Table 2 above show that majority of the head teachers, 26(57.8%), said gender streaming had helped girls perform and that girls had been empowered than boys, hence perform better as indicted by 19(42.2%) of the head teachers. This was because when gender streamed, they got more time to be taught since when at home they spend a lot of time doing domestic chores. These findings showed that gender streaming had achieved its goal of providing equity in terms of performance of girls in the area. As Kleinfeld (1998) explains, the idea that 'schools short-change girls' was wrong and dangerously wrong it was girls who get higher grades in school, who do better than boys on standardized tests of reading, writing and who get higher in class rank and more honours. In fact women are the ones owning big posts in Government offices, which explains why today under achievements of boys is at the educational forefront and many countries including Australia are developing strategies to boost boys' performance in all academic levels. The under achievement of boys has now become somewhat of a fashionable topic for educational debate and discussions in many countries.

The research further asked the respondents to indicate ways in which any other factor could influence gender streaming in schools. The results were as shown in Table 3 below.

Table 3. Other Factors that Influence Gender Streaming in Secondary Schools in Baringo County

Responses	Frequency	Percentage (%)
Emphasis on girls' education: Lots of emphasis on girls' education than boys	19	42.2
Boarding schools: more girls boarding schools	8	17.8
Leaders: Leaders have supported girls education than boys	18	40.0
Total	45	100.0

Table 3 shows that 19(42.2%) of the head teaches viewed that when a lot of emphasis was put on girls education than boys, girls then will perform better, hence influenced gender streaming in secondary schools in Baringo County. Eighteen (40.0%) of the head teachers said that leaders have supported girls' education than boys while 8(17.8%) of the head teachers said that there were more girls' boarding schools. The findings imply that there had been much emphasis on the education of girls to the detriment of the boys.

The findings concur with Warrington, Younger and Williams' (1999) study whose findings report that all the schools studied complained about the negative effects of their work caused by boys' disruptive behaviour. The respondents felt that even politicians have supported girls' education leaving out the boy-child. If the trend is not checked, the findings showed that girls would overcome boys even in the social arena.

Correlation Analysis on the Influence of Gender Streaming on Students' Performance

In order to determine the relationship between gender streaming and performance, the Pearson Coefficient correlation was used. The results were as shown in Table 4 below.

Table 4. Pearson Correlation Results of Gender Streaming and Students' Performance

		Student Performance	Gender Streaming
Pearson	Gender streaming	1.000	0.48
Si 1 – tailed	Students' performance	0.48	1.000
N	45	235	

The scores obtained on the independent variable (gender streaming) were correlated with the predicted variable performance in mean scores. The coefficient of determination in the relationship was established. In subsequent steps, data was collected on the dependent variable (performance) and then correlated with those of the independent variable (gender streaming). From the results obtained on a 1-tailed test of significance and 3 degrees of freedom, it was observed that there was a positive moderate (0.48) relationship between gender streaming and performance. These results are in line with the views of Harker and Nash (1997) who report a statistically significant difference in students' performance in examinations in favour of girls in single-sex schools. The findings also concur with those of Lopore and Warren (1997) who found that boys in single-sex schools did not increase their text scores more than boys in co-educational schools did. The education of girls is important given their reproductive role as home makers and care givers to children. Since statistically educated women tend to have smaller families, fewer of their children die in infancy and those who survive get better access to quality health and education. Moreover, educated girls have a better chance of entering into employment which is critical to the welfare of many female-headed households in developing countries.

Relationship between Gender Streaming and Performance across Different Categories of Schools

To ascertain the relationship between gender streaming and performance across the three categories of schools, one-way ANOVA statistical test was used. To establish the relationship between gender streaming in all categories of schools, Spearman Rank Correlation Coefficient (p or ρ) was used. The results were as presented in Table 5 below.

According to the findings in Table 5 above, there was no significant relationship between gender streaming and performance in the boys' only school ($t=0.527$, $p>.05$), girls'

only school ($t=.870$, $p>.05$) and mixed gender schools ($t=1.003$, $p>.05$).

Table 5. Relationship between Gender Streaming and Performance across School Categories

Category of School	Mean	sd	T	P
Boys school	79.00	2.5580	.527	.503
	1.9580	2.000		
Girls school	2.9329	3.3329	.870	.239
	1.3333	6.3232		
Mixed schools	69.3478	3.7498	1.003	.270
	70.333	3.63297		

Because all p values were greater than .05, the data provided substantial evidence to conclude that there is no relationship between gender streaming and the various categories of schools. These results concur with the findings of Lee and Lockhead (1990) among ninth grade Nigerian public schools who found no significant gender gap between mathematic scores of Nigerian boys and girls once their variables were taken into account. They also found that girls in single-sex schools outperformed other girls in co-educational schools in class performance.

Conclusion and Recommendations

Based on the findings of the study, it was concluded that gender streaming had helped girls to perform better than the boys. The study also concluded that much emphasis on girls' education had improved their performance. The study also concluded that there was no significant relationship between gender streaming and performance across the various categories of schools. Based on the findings of the study, it was recommended that there is need to empower boys and girls equally to ensure all perform better.

REFERENCES

- Beijing Platform for Action 1995. *Platform for Equality, Development and Peace*. Fourth World Conference on Women, Beijing.
- Boserup, E. 1970. *Women's Role in Economic Development*. New York: St. Martin's Press.
- Commonwealth Secretariat 1994. *Twelfth Conference of Commonwealth Education Minister's Report*. Barbados. 29th October-2nd November.
- Commonwealth Secretariat 1999. *Gender Mainstreaming in Education*. Pall Mail, London: United Kingdom.
- Commonwealth Secretariat 2002. *Educational Catholic Secondary School*. *American Educational Research Journal*, 34(3), 485-511.
- DEETYA 2000. Department of Employment, Education, Training and Youth Affairs (pre-1999).
- Gilbert, R. and Gilbert, P. 1998. *Masculinity goes to School*. NSW: Allen and Unwin.
- Githua, B. N. 2002. *Factors Related to Motivation to Learn Mathematics among Secondary School Students in Kenya's Nairobi Province and three Districts of the Rift Valley Province* (PhD Thesis). Egerton University, Njoro, Kenya.
- Government of Zambia 1995. *National Policy on Education*
- Harker and Nash, 1997. *Will boys be boys? Boys' education in the context of gender reform*. Australian Curriculum Studies Association.

- Kamau, N. (Ed.). 2008. Enhancing Women's Political Participation. *Perspectives on Gender Discourse*, 6/08. Nairobi: Heinrich Boll Stiftung.
- Kathuri, N. J. and Pals, G. 1983. *Introduction to Educational Research*. Egerton University: Education Media Centre.
- Kleinfeld, J. S. 1998. *The myth that schools short-change girls: social science in the service of deception*. New York: The Women's Freedom Network.
- Lee, V. E. and Lockhead, M. M. 1990. The effects of single-sex schooling on achievement and attitudes in Nigeria. *Comparative Education Review*, 34, 485-511.
- Lepore, P. C. and Warren, J. R. 1997. Comparison of Single-sex and Co-educational Catholic Schooling. *American Educational Research Journal*, 34, 485-511.
- Lillico, S. 1999. *Experiencing School Mathematics: Teaching styles, sex and setting*. Milton Keynes: Open University Press.
- Measor, L. and Sikes, P. 1992. *Gender and Schools*. London: Cassell.
- Ministry of Education, Science and Technology (MOEST) 2004. *Baringo District Educational Plan, 2004-2008*. Nairobi: Government Printers.
- Mondoh, H. O. 2001. *Cognitive Differences in a Mathematics Class*. Paper presented during a workshop on 'In-Servicing Science and Mathematics Teachers of Nakuru District', 9-12 April, Nakuru High School, Kenya.
- Moser, C. 1989. Gender Planning in the Third World: Meeting Practical and Strategic Needs. *World Development*, 17, 11.
- United Nations 2002. *Beijing Declaration of the Fourth World Conference on Women*. UN.
- Warrington, M. and Younger, M. 1999. The other side of the gender gap. *Gender and Education*, 12(4), 493-508.
- World Bank 1996. *Education Sector Strategy*. Retrieved September 25, 2006 from update Education_Strategy_Update.pdf
- World Bank 2006. *Implementing the World Bank's Gender Policies*. Progress Report No. 1. Washington D.C.
