INTRODUCTION

Background information

The bulk of statistics around most African countries consistently confirms that girls have consistently outnumbered boys in lower classes in Early Childhood and lower primary with the reverse being noticed in upper primary and secondary where boys overtake the girls (Orodho, Waweru and Getange, 2013; Orodho, 2014). Congruently, growing concerns assert that girls have continuously under-performing in national examinations in upper classes compared to boys. The pattern of results led to the assumption that girls underperformance is due to their underrepresentation in those class levels, especially in secondary schools. As such policies that attempted to address the problem of female under representation and poor performance were skewed in favour of the females (Orodho, 2014). The bulk of research studies seemed to focus on the causes of female underrepresentation not only in access and performance in education but also in wage employment (Njeru and Orodho, 2003). As a consequence of the foregoing, identifying factors that influence students’ learning and thus achievement continues to be an important objective of educators at all levels (Carrotte, 1999; Awori, Orodho and Mugo, 2010; Orodho et al., 2013). Various factors affect student achievement at secondary education level like personal confidence and a feeling of competence in learning; hopeful but realistic projection into future occupational roles and social roles; emotional stability; temperament tendency towards introversion; relative independence from teachers and a tacit acceptance of the of the curricular and work demands arising within the structure of tuition (Wankowskii, 1991; Orodho et al., 2013). Self-efficacy has been identified as a positive predictor of academic performance (Lee and Bobko, 1994; Awori, Orodho and Mugo, 2010; Gitonga, Meru, orodho, Wang’eri and Kigen, 2014; Orodho et al., 2013). Achievement is affected by students’ personal characteristics, attitudes, activities and most of all students’ interest and engagement. Students with low...
academic self-esteem and the students that are not interested and actively engaged are at a significantly higher risk of low achievement (Linnakyl, Malin, and Taube, 2004). Students’ attitude towards a particular subject has a positive relationship with achievement (Bos and Kuiper, 1999). Cognitive aspects, motivational factors, teaching methodology and classroom-contextual factors exercise a significant influence. Cognitive factors including cognitive capabilities, previous knowledge, and, to some extent, subject-specific self-concept are important for achievement (Von et al., 1998; Orodho, Waweru, and Getange, 2014). Along with these factors pertaining to the students’ personalities, family background is also very important. Research indicates that students from lower socio-economic background in terms of parents’ occupational status faced a higher risk of low achievement. Home educational background and parents’ educational attainment greatly influences the quality of education for their children. Student achievement was found to be directly proportional to the achievement of their parents (Rainey and Murova, 2004). The cultural factors of the home were another factor that proved significant in predicting low achievement (Linnakyl et al., 2004; Oketch and Ngware, 2012; Orodho et al., 2013). Notwithstanding the foregoing research efforts, the emerging scenario in Kenya seems to indicate that the males are slowly being overtaken by their female counterparts in access and participation in education in some counties in the country. Subukia District in Nakuru County is a case in point where the performance of boys in KCSE has been declining over time. According to the Ministry of Education (2012), the district’s mean score was B in 2009, B- in 2010 and C+ in 2011. Though boys were reported to have more quality grades than girls (B+ and above), the average grade for boys was generally lower than for girls. While 35% of girls scored C+ and above, 23% of boys scored similar grades. It is against this backdrop that the researchers undertook to diagnose this problem of boys’ dismal performance in national examinations in the study locale with a view to prescribe some plausible intervention strategies.

State of Art Review

In contributing to the discourse on academic performance, Rodriguez (1986) avers that academic performance is a situation where the learner attains or fails to attain expected achievement according to his or her abilities which in turn affects all other aspects of life. In a similar vein, Brostrom (2000) argues that while most educational systems perceive that student performance is gauged on whether he or she passes the examinations, it is most appropriate to determine a student’s performance based on his or her potential. The potential of a student can be looked into in terms of Parents, teachers and student factors. Crosnoe, Johnson and Elder, (2004) as well as Orodho (2014) support this line of argument by observing that variables that affect students’ quality of academic achievement are inside and outside school which include student factors, family factors, school factors and peer factors. These elements can be broadly categorized into socio-economic factors (Orodho, 2013). Self-efficacy refers to the abilities of the students for success in a given task (Bandura, 1997). He goes on to say that “It is a student’s “I can” or “I cannot” belief. Self-efficacy reflects how confident students are about performing a specific task. Self-efficacy beliefs affect behaviours of a student through how he or she feels thinks, motivates him/her, and acts. Self-efficacy influences what activities students select, how much effort they put forth, how persistent they are in the face of difficulties, and the difficulties of the goals they set” (Bandura 1977; Awori, Mugo, Orodho and Karugu, 2010). Bandura (1977) posits a mechanism of changing, continuing and generalizing behaviour in the basis of self-efficacy of individuals. Self-efficacy is a key element of Bandura’s social learning theory and plays a role of an inner drive that directs a student’s behaviour toward the fulfillment of a goal (i.e., academic success). Motivation is a goal-directed behaviour and indicates the willingness of the students to exert high levels of effort toward achieving goals (Awori, Mugo, Orodho and Karugu, 2010). Motivation influences how and why people learn as well as their performance (Pintrich and Schunk, 1996). Numerous studies (e.g., Marie, 2006; Lent, Brown and Larkin, 1987) show that self-efficacy may be a good predictor of performance. It is believed that if people think that they are not able to do some particular thing, they may not even try to do it, thereby affecting a person’s choices, behaviour, motivation, perseverance, and facilitative thought patterns (Mager, 1992). Self-efficacy beliefs apply to a wide range of situations and are good predictors of performance and behaviour (Bandura, 1978, Gist and Mitchell, 1992; Gitonga, Kigen, Wang’eri and Orodho, 2013). The relation between self-efficacy, motivation, and performance is best summed up by Bandura (1997, p.61). It is well documented in the literature that motivation plays an important role in influencing students’ academic achievement. Several researchers (Pintrich, 2000: Pintrich and Schunk, 1996; Garcia, 1995, Bandura, 1986) found that students use different motivational strategies in different learning situations. In general, students are found to value both intrinsic and extrinsic rewards. This is widely lacking in many boys in Subukia District. Students’ performance can be affected by social-economic factors. The parental education and income are among the social-economic factors that affect the student performance. Social economic factors involve the family background, motivation from parents and the social status of the students. These factors determine whether a student will successfully achieve his or her academic goals. The family’s financial status affects a number of factors that can help or hinder a child in gaining education (Orodho, 2014). The financial status of the problem determines the social-economic status (SES) of the students. Chaudhry (2011) notes that the most prevalent argument is that the social-economic status of learners affects the quality of their academic performance. Most of the experts argue that the low SES has negative effect on the academic performance of students because the basic needs of students remain unfulfilled and hence they do not perform better academically (Adams, 1996; Orodho, 2013). The low SES causes environmental deficiencies which results in low self esteem of students (US Department of Education, 2003). The SES can be looked at in terms of parental education, occupation, income, and facilities used by individuals separately or collectively (Jeynes, 2002). Parental education and family SES level have positive correlations with the student’s quality of achievement (Klinger, 2000). The students with high level of SES perform better than the middle class students and the middle class students perform better.
than the students with low level of SES (Garzon, 2006; Kahlenberg, 2006; Kirkup, 2008). Empirical evidence reveals disparity in academic performance between genders. Rutter et al. (2004) for instance argues that Boys are more likely to be diagnosed as reading disabled than girls; however, the size of the gender gap varies across countries. A Study carried out in America revealed that girls enter school with better literacy skills, and the gap increases slightly during the kindergarten year (Ready et al., 2005). Such findings are attributed to the fact that boys’ reading interests are not being addressed in school and boys reportedly disliked the kinds of things they had to read for school and preferring magazines and adventure and scary stories (Sokal et al., 2005; Orodho, 2013; 2014). In most African countries including Kenya empirical studies contend that more emphasis is placed on girl-child education (Robinson, 2009). This has led to the boy child being relegated at the periphery and thus endangered. Thus according to the Education for All (2000) continuous and holistic lobbying and advocacy, and training to mainstream gender equity in the entire education system will have to be intensified. However, Anderson and Benjamin (1994) argue that it is common for male students to outperform their female counterparts a fact that has been witnessed in the Kenyan context. During the past 15 years, increasing percentage of girls and boys have scored at higher levels in math, and in reading, where gains were made, they were positive for both boys and girls. (Corbett et al., 2008). Katherine (2010) argues that failing boys and succeeding girls can be boiled down to this: males tend to over-value their abilities, whereas girls tend to under-value their abilities. Hence, girls who dare trespass in male-dominated realms tend to screw female scores up, whereas males who should not remain in higher-level classes, but instead instead either overvalue their own abilities (or as a result of family pressure) remain in classes that are too challenging for them, bring the boys' mean score down (Martino and Meyenn, 2001).

Statement of the Problem

Despite the milestones Kenya has achieved in terms of remarkable attainment of local and international based standards in the direction of education for all by 2015 and Millennium Development Goals (MDGs) at the national level, myriad challenges still exist in some geographical locations and by gender within the country. The major challenge is ensuring equity in educational provision by gender and geographic locations. The relationship between gender and the academic achievement of students has been discussed for decades (Eitle, 2005). A gap between the achievement of boys and girls has been found, with girls showing better performance than boys in certain instances (Chambers and Schreiber, 2004). For instance when the 2009 Kenya Certificate of Primary Education (KCPE) results were released, the girls were reported to have performed better than the boys particularly in the languages. The trend is that the girls are catching up with the boys and sooner than later, they may be doing better than the boys even in the sciences (Ongeri, 2010). The case in point is Subukia District, Nakuru County where the girls are currently outperforming the boys in national examinations, especially at the Kenya Certificate of Secondary Education (KCSE) level. It is arguable that, invariably, there must be certain social-economic and institutional factors that may be increasingly disadvantaging the boys resulting to the deteriorating performance. Thus, the overall problematique of this study is the concern regarding the possible socio-economic and cultural factors and if so, how are school managers managing the problem?

The Purpose and Objectives of the Paper

Given the problem of the study, the purpose of this paper is to assess the effects of social-economic factors on the performance of boys in K.C.S.E in Subukia District, Nakuru County, Kenya. The paper has three objectives, namely:

1. To examine the emerging performance profile of students by gender in Kenya
2. To assess to what extent family background affected boys performance In K.C.S.E in Subukia District.
3. To establish the mechanism adopted by schools to address boys’ academic performance in K.C.S.E in Subukia District.

The Theoretical Framework

Theory of Educational Productivity by Walberg (1981) determined three groups of eight factors based on affective, cognitive and behavioral skills for optimization of learning that affect the quality of academic performance: Aptitude (ability, development and motivation); instruction (amount and quality); environment (home, classroom and peers) (Roberts, 2007). Aptitude in this theory includes ability, development and motivation. In the context of the study the motivation that a student receives from teachers and parents affects his ability and thus performance. The instruction in the theory includes amount and quality of instruction delivered in school. In the context of the study curriculum implementation is one way of measuring the quality and quantity of instructions delivered in school. Lastly the environment includes home, classroom and peers. In the study environment can be looked at in terms of the school discipline issues, resources such as teachers and classes.

RESEARCH METHODS

The study adopted a survey design to investigate the effect of social-economic factors on performance by boys in K.C.S.E. Orodho (2009) observes that a survey design involves obtaining information by interview or by administering questionnaire. Both qualitative and quantitative research approaches were used. The survey was conducted using a questionnaire that was composed of closed-ended questions and semi-structured interview. However, to capture previous performance of boy’s, secondary data was obtained from the school records. According to McMillan and Schumacher (1993:373), “Qualitative research is concerned with understanding the social phenomenon from the participants’ perspective.” On the other hand, quantitative research is an inquiry into an identified problem, based on testing a theory, measured with numbers, and analyzed using statistical techniques. In this study the researcher used purposive sampling to draw a sample of the principals, and simple
random sampling technique selecting boys’ who participated in the study. According to Mugenda and Mugenda (1999), descriptive studies require a minimum of 10% of the accessible population for any study. Orodho (2009), however, cautions that the percentages should not form the basis of selecting a sample unless the size of the population from which the sample is to be drawn is factored into the decision making process. In this case, therefore, a sample close to 10% of the 57 school principals was picked. On the other hand the number of boys who participated in the study was calculated as follows; when the population is more than 10,000 individuals, 304 of them are recommended as the desired sample size (Mugenda and Mugenda, 1999; Orodho, 2009). The accessible population in this case was 7,886 boys.

\[
n_f = n/(1 + n/N)\]

According to the above formula:

\[
n_f = \text{desired sample size when the population is less than 10,000},
n = \text{desired sample when the population is more than 10,000},
N = \text{estimate of the population size}.
\]

Using the above formula sample size is:

\[
n = \frac{384}{1 + \frac{384}{7886}} = 366.1697
\]

In this study the researcher used purposive sampling to draw a sample of the principals, and simple random sampling technique selecting boys’ who participated in the study. Mugenda and Mugenda (1999) as well as Brooks (2013) contends that, descriptive studies require a minimum of 10 percent of the accessible population for any study. In this case therefore 10% of the 57 school Principals were picked. According to Orodho (2009), questionnaires and interview schedule are the most common instruments used in education and social research. In this study interviews and questionnaires were used. Interview technique was preferred since it allows for in-depth probing, leading to more information and also clear expression of feelings, opinions and attitudes from tone of response and facial expression. The interview set-up was an open and informal so as to understand all the personal feelings of the respondents without limiting their opinion. Interview was used in this study to allow individual principal to give their opinion on institutional factors that affects the boy’s performance. As Maxwell (2005) point out, qualitative research focuses on processes rather than variance. During the interview, specific questions were asked revolving around given themes. This allows the interviewee a leeway to express his or her own interpretation and permits an extensive discussion of the theme (Hirsjärvi and Hurme, 2008). In addition, the respondent is able to bring out new or unexpected information.

Orodho (2009) points out that a questionnaire can be used to collect a huge amount of data in relatively shorter time. Further a questionnaire reduces bias inherent in interviews leading to honest answers since no identification was needed and respondents gave answers without fear. Questionnaires with open-ended and closed-ended questions were issued to the boys. The questionnaires intended to establish their social-economic status based on their parents education and income and motivations they receive from their parents. The data collected from the students through a questionnaire was analyzed and presented by generating frequency tables, percentages, and pie charts. This involved presentation of information on the demographic characteristics of the respondents and social-economic status. Qualitative data analysis is concerned with the process of organizing data into themes that emerge from the data (McMillan and Schumacher, 1993). Holliday (2002) suggests that the researcher searches for natural divisions or themes in the data, making use of areas of significance as they are reflected in the collection of data. Arriving at these can be achieved by formal analysis of interview text as well as from what was observed during data collection. In this study the researcher searched for themes by reading through the interview text, while noting down probable themes. Thereafter these notes were grouped into themes and interpreted. The quantitative data was analyzed using SPSS where mean scores, percentages and frequencies were generated. Parsons’ correlation coefficient was computed to establish the relationship between socio-economic factors and performance of boys in KCSE.

**DISCUSSION**

**Gender Disparity in Performance**

The first objective of this paper was to document the current gender disparity in students’ performance in Kenya between 2008 and 2010. The results are carried in Figure 1. Results in Figure 1 captured students attaining grade C+ and above by gender at the Kenya Certificate of Education (KCSE) Examination in Kenya between 2008 and 2010. The comparison reveals that although the number of boys attaining a mean grade of C+ is still higher than that of girls, the general trend shows an upward trend for females’ performance compared to their male counterparts. In fact, studies have indicated that the performance of boys compared to the girls has been decreasing in some regions in Kenya (Murithi, 2010). The emerging scenario indicates that while for the past several decades, educators worried about girls’ performance in science and math, the currently emerging boys’ lagging literacy skills and academic performance has shifted concern to the boys who seem to be experiencing unnoticed challenges (Ongeri, 2009). Since the introduction of free education both in primary and day secondary level there has been an influx of over age students in both levels. These older students may be affected differently by social-economic factors from younger students since social and family responsibility varies with age. In this case however, the students fall within the same age group. Being in the same age groups the students are likely to react in a similar manner in respect to social-economic factors. The mean scores trend for the boys as they transit from one class level to the next is portrayed in Figure 2. As shown in Figure 2, the performance of the students declined as they moved on to higher classes. The performance trend indicates that as boys enter secondary schools their performance is high, but as they progress within the system and get affected by various social-economic factors their performance declines.
Family Background and Performance

The second objective of this paper was to assess the extent family background influences the performance of boys in national examinations in the study locale. The social economics factors under investigation included the levels of parents’ income and education, motivation from parents and family financial hardships. The income level of the parents was considered an important indicator of the social economic status of the parents. The students indicated the relative income of both parents. The findings revealed that fathers earn relatively higher income as compared to mothers’. Three quarters of the students reported their mothers as earning less than Ksh 10,000 level of income. On the other hand more than half reported that their fathers earned between Ksh 20,001 and Ksh 40,000. The education level of parents’ is also an important indicator of social economic status of the students. The parents’ education level was assessed by requesting the students to indicate the educational level of both parents. Similar to income levels, fathers had attained higher education level than mothers. While more than half of students reported that their fathers had tertiary education, slightly over a quarter reported their mothers had attained similar levels of education.

To establish the relationship of the social economic factors and performance of the students, Pearson’s correlation coefficient was established between each factor and the performance. The educational level of mothers had the highest influence on performance since it had the highest correlation coefficient of 0.865 at a significant level of 0.000. For the correlation to be statistically significant the significant level should be equal to or less than 0.05. In this case the significance level was 0.02 indicating that both the mothers’ and fathers’ education have a statistically significant influence on students academic the performance at α = .05 confidence level. Thus it implies that education is a strong social economic factor that influences boys’ performance. This corresponds with Rainey and Murova (2004) findings that student achievement was directly proportional to the education of their parents since the parents’ educational attainment greatly influences the quality of education for their children. However, this study managed to separate the influence of the mothers’ education from that of fathers. The findings revealed that mothers’ education had a higher influence on boys’ performance as compared to the fathers’ level of education. This can be attributed to the fact that Subukia District is in a rural set up where mothers are most likely to spend more time with their children than their fathers who may be out of home in employment. In that case therefore an educated mother acts as a role model and motivator (Orodho, 2013). Income was an important social economic factor in respect to the performance of boys. The fathers’ income had a correlation coefficient of \( r = 0.401 \) and the mothers’ income had \( r = 0.400 \). Both had a significant level of 0.000 thus statistically significant. In this case income of both parents had almost equal strength on the influence of the boys’ performance. Similarly this finding is in line with past findings that the financial status of the parents determines the social-economic status of the students which affects their academic outcome (Chaudhary, 2011; Orodho, 2013, 2014).

Motivation from parents and family financial hardships were considered as part of social economic factors. Students’ performance may be influenced by motivation from parents since it affects their attitude towards education. As part of the family, students may also get affected by family financial problems which may affect their lives and thus their education. In this case, despite the fact that the study district was characterized with severe financial problems, more than half of the students considered motivation from parents as being very significant in regard to their performance. The parents consistently encouraged their children to work hard in their quest for better education so that they may break the poverty trap in future. The parents perceived education as an investment for a better future for their children (Orodho, 2013, Orodho et al., 2013).

Mechanisms adopted by schools to Reverse Boys Dismal Performance

Having established the social economic and institutional factors affecting the performance of boys in K.C.S.E in Subukia District, the study sought to find out how schools institute coping mechanisms. The study sought to understand the coping mechanism by conducting interviews to six principals within Subukia district.

According to one of the Principals

The performance of boys is average but slowly declining over time. However, the boys’ transitional rate remains high at
90%, although this trend has been fluctuating, and they require constant encouragement, since they considered majority of students to be from poor economic background with most of their parents being semi-illiterate (Principal 1). Principal perceives that socio-economic factors such as parents’ education and income level affects the performance of boys. The next principle had a slightly different perspective regarding the cause of the poor performance of boys. Thus, according to this principal: The specific problems affecting boys in schools are truancy, absenteeism and in case of mixed schools boys’ performance is affected by coupling. The best approach to eradicate this problem is cooperation between the teachers and parents in guiding and counseling the students. The former use of corporal punishment only exacerbated the problem (Principal 2).

To help boys cope with issues affecting them and enhance their participation and overall academic performance in school, most principals contended that: Individual schools should invite motivational speakers, especially former successful students to inspire boys and give them tips on how to become successful in life through education. Further, regular evaluation of performance is conducted where those who have performed exceptionally well are awarded. This also acts as a motivator for other boys to strive to perform better (Principals 1, 2, 3 6 and 7). The other principles indicated that the best approaches to enhance the academic performance of the boys included a mix of the following mechanisms: Involve parents during annual general meeting on how to generate income using locally managed income generating activities as well as paying additional school levies in kind such as bringing agricultural produce instead of cash and parents being involved in casual employment in school so as to raise the needed cash in order to avoid sending children away to look for such funds. The extra funds generated should also be used to improve school infrastructure to make the learning environment friendly. These measures are in tandem with earlier findings from other studies that documented that democratic form of discipline leads to a healthy classroom environment that in turn promotes respect for education and a desire for knowledge (Rwamba 2004; Orodho, Waweru, Getange and Miriti 2013). Further, guidance and motivational services have significantly positive effect on student’s study attitudes, study habits and academic achievement (Chaudhary 2006; Orodho, Waweru, Ndichu and Ntinguri 2013). The coping mechanism employed by school management to ensure boys in school perform as expected include, counseling, motivation and forums from former successful personalities from the local community, teacher-parent cooperation in soliciting for additional income and maintenance of students discipline, as well as creating conducive avenues within the school management structure to allow students ventilate their issues.

Conclusion and Recommendations

The social-economic economic factors under consideration in this study included the parents’ levels of education and income, family parents and parent motivations. The findings indicated that parents’ education and income and parents’ motivation are important factors that influence the performance of boys in secondary school. However, family financial hardships were found to be irrelevant in respect to boys’ performance. Though parents’ formal educational level is one of the important socio-economic variables, the mother’s educational level was found to be more important in influencing the performance of boys as compared to the education level of the father. The income levels of both parent are, however, equally important in determining the performance of the students. Given the findings it follows that the boys’ performance declines as they progress within the school system such that at the entry level the performance is high but declines during the final years. The decline results from both institutional and social-economic factors. The social-economic economic factors include the students’ family background such as income and education levels of the parents. As the student progresses within the system, the school additional school levies become a burden since most of the students are from poor home background. It was also apparent that the high education level of some of the parents motivated the students to stay in school longer and even perform better than their counterparts with less educated parents. The negative effects of these factors have been mitigated through counseling, motivation and creating forums for discussions. From the findings and discussion, it is recommended that secondary schools should consider improving the existing counseling services and establish fully operational counseling departments. Such departments will offer counseling services to students on regular basis to mitigate on the effect of social economic factors on the boys performance. Given that boys perform poorly as they progress to higher classes, the intensity of guidance and counseling should equally increase. The study also recommends the formulation of policies that would target boys’ education. This will ensure that problems which are specific to boys are adequately addressed. Currently policies on access to education are biased towards enhancing girl children education and those targeting boys are non-existent. The study suggests further research on a comparative basis to investigate whether social economic and institutional factors affecting boys are similar with those affecting girls. The study also suggests further research on the social economic and institutional factors affecting boys performance be conducted in other districts in the country. This is because social economic and institutional factors may differ depending on geographical locations and cultures in Kenya.

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