Influence of Parental Level of Education and Parental Income on Students' Academic Performance in Public Day Secondary Schools

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Abstract
Kipkelion Sub-county academic performance has been dismal for the last five years (2007 - 2012). Study investigated the influence of home environment on students' academic performance on the influence of: parental level of education, and parental income on students' academic performance in public day secondary schools, based on Ecology System Theory by Bronfenbrenner. A sample of 210 form four students were selected using stratified and simple random sampling based on the causal-comparative research design, since manifestations of independent variables on dependent variable had already occurred. A questionnaire was used to solicit information on students' home environment. Whereas, document analysis was used to collect information about the students' academic performance based on Mock Examination. Data was analysed using descriptive and inferential statistics such as: ANOVA. Study revealed that the parental income significantly influenced students' academic performance. However, parental level of education had no effect on students' academic performance. Study recommends strategies to put in place with a view of improving students' academic performance like: active participation of parents on students' academic affairs regardless of parental level of education. Therefore, this research determine the influence of parental income and learning which significantly influenced, this will sensitise the parents, teachers and stakeholders on how address these factors so as to improve students' academic performance.
Keywords: influence, home environment, parental income, parental level of education, academic performance.

Education is the development of the endowed capacities in the individual which will enable him to control his environment and fulfill his responsibilities to a major extent (World Bank, 2004). Over the past several decades, scholars have been concerned with the poor academic performance of children. Studies revealed that various factors are responsible for scholastic failure of students, such as low socio-economic background, student's cognitive abilities, school related factors, environment of the home, or the support given by the parents, and other family members (Fan, 2001). In addition to making learning enjoyable and rewarding, a quality home learning environment contributes to the standards that children set for themselves and their aspirations for education (Jeynes 2005). Family background is the foundation for children's development, as such family background in terms of family structure, size, socio-economic status, and educational background play important role in family background is the foundation for children's development. This is because providing a supportive learning environment at home requires parents' time as much as financial resources, students' educational attainment, and social integration (Osunloye, 2008).

OECD/UNESCO (2003) alleged that family characteristics are a major source of disparity in students' outcomes. More family financial resources, which are associated with parents' occupation and educational attainment, often imply increased learning opportunities both at home and in school. Better-educated parents can contribute to their children's learning through their day-to-day interactions with their children and involving themselves in their children's school work. Parents with higher occupational status and educational attainment may also have higher aspirations, and expectations for their children's occupation, and education which in turn can influence their commitment to learning.

In the United States, a study on the effects of poverty on academic achievement indicated that the number of Americans living in poverty is continually increasing. Poverty directly affected academic achievement due to the lack of resources available for student success. Low achievement was closely correlated with lack of resources. Poverty significantly affected the resources available to students. Due to this lack of resources, many students struggled to reach the same academic achievement levels of students not living in poverty. The factors that affected students' achievement include income, source of income, and the mother's education level. Although many poor students scored below average on assessment measures, instructional techniques, and strategies implemented at the classroom, school, district, and government levels could help close the achievement gap by providing students with necessary assistance in order to achieve high performance in academics (Lacour, & Tissington, 2011).

In India, a study was carried on the relationship between SES and Academic achievement of 14 Secondary school students of Lucknow city of Uttar Pradesh (India). The age range was between 13 years to 17 years. The

sample comprised of 614 students (358 males, and 256 females) from classes IX and X. The t-test and Karl Pearson's correlation coefficient were used. The study revealed a significant difference between high SES, and average SES category students. Students belonging to high SES category had higher academic achievement as compared to average SES students. The High SES students had better exposure, and environment, and attended schools with excellent infrastructure, and facilities. The teachers, tutors, and guidance of parents were also available to them (Chandra, & Azimuddin, 2013).

In Nigeria, a study was conducted on the influence of family structure on the academic performance of students in public secondary schools in Agege Local Government Area, Lagos State. Stratified sampling technique was used to select 114 students from five public schools, and simple random sampling technique to administer the questionnaire. Data was from the students' scores in English, Mathematics, Economics, and Biology, which was analysed using cross tabulation, tables, simple percentages, independent samples test, and multinomial logistic regression (MLR). MLR result revealed that parental socioeconomic background significantly influenced students' academic performance ($p < 0.05$). The study revealed that students whose parents had better jobs and higher levels of income tend to have higher levels of literacy performance (Ushie, Emeka, Ononga, & Owolabi, 2012).

Devi and Kiran (2002) reported that low educational status of parents, low parental involvement, and low parental encouragement were found to be the major family factors associated with scholastic backwardness on a study on family factors associated with scholastic backwardness of secondary school children in Hyderabad city. In china, a study was carried out on the effects of parental human education, family income and peer group on children's education performance using a data of about 300 students from primary, and high schools in China which includes extensive background information at the student, parents and friend level. The research found that the effect of parental education, and family income was slight on children's academic results (Zhang, 2011). Studies conducted by: Suleman,(2012) in Pakistan found that parental level of education affect the academic achievement of secondary school students; Ruth, et al (2011) in Spain found also that there was association between parental level of education and cognitive performance in Spanish adolescents; McIntosh(2008) in Canada found that well educated parents contributed to making the child more successful at school, and Farooq, et al(2011) in Pakistan found that parents' education had a significant effect on students' overall academic achievement as well as in Mathematics and English.

In Nigeria, a study on relationship between home-based environment factors, and the academic performance of students in selected secondary schools within a local government area in Kwara State,180 students randomly selected from three secondary schools, using t – test, analysis of variance (ANOVA), and pair – wise turkey test comparison at 0.05 level of significance, on parental socio-economic background, parental educational background, and parental educational qualification. Found that Parental socio-economic statuses and parental educational background did not have significance effect on the academic performance of the students. However, the parental educational qualification was identified to have statistical significant effect o the academic performance of the students. The two variables that indicated significant influence do reflect nature of the student' home environment, and played notable role in the academic achievement of the respondents. The study recommended the Government's intervention to raise level of academic achievement among students in rural area (Ogunshola, 2012).

In Nigeria, a survey was conducted based on ex-post facto, and correlation, that investigated the influence of home environment on academic performance of senior secondary students in Adamawa State. A sample of 900 students was selected from 8,548 students in class 2 in 2012/13 to 2013/14 academic sessions, using multi-stage random sampling technique to respond to the data collection. Inferential statistics, z-test and Correlation analysis were used to analyse, and interpret the data. The results showed that parental educational qualification (r = 0.73), while parental economic status (income and affluence) had moderate correlation (r = 0.60). But all the independent variables had significant influence on students' performances in Agricultural Science. The study recommended parents and other significant persons should make students' homes conducive, and stimulatory to learning not only the school subjects, but education in general (Egunsola, (2014).

In Nigeria, a study was carried out to find out how family background of students in Anambra State influences their academic achievement in senior secondary school Biology. A survey design was adopted for the study. 546 Senior Secondary Two (SS2) biology students were drawn by simple random sampling from 14 schools within Awka, Nnewi and Onitsha Education Zones, in Anambra State. Data were collected using questionnaire, and students SS1 and SS2 school results. The results revealed that educational level of parents, did not have significant influence on students achievement in biology. A conclusion, that family background did not have much influence on students' achievement in science (biology) (Osuafor, & Okonkwo, 2013).

In Kenya, a study was conducted that investigated effects of economic activities on pupils' academic performance of pupils at Kenya Certificate of Primary Education in Lari division. A survey study design was used, whereas questionnaires for head teachers and standard eight were used for data collection. Data was analyzed using descriptive statistics. The findings revealed that academic performance of pupils was adversely

affected by contextual factors such as inadequate support by parents, low income, and level of education of parents, and were deemed to contribute to poor academic performance (Awuor, 2012). Omoraka (2001) noted that children with rich parents have certain needs, physical, and sociological which when met contribute positively to their academic performance. These needs may include a conducive reading atmosphere, good food, playing grounds, provision of books, and other essential materials.

Also, studies in Kenya by Onderi, (2014) found that parental level of education contributed to students' academic, similar to Ntitika, (2014) that found that parental level of education affect students' academic performance as highlighted in 2.1.3 on parental income. Furthermore, studies in Kenya by: Ogweno, et al (2014) found a positive correlation between level of education of the mother and students' academic performance; Makewa, et al (2012) established parental level of education affect the academic performance of pupils, and Muola, (2010) also found that a positive correlation between parental level of education and children's academic achievement. Finally, in the studies conducted in Nigeria by Muruwei, (2011) and Alokan, (2013) established that parental level of education had great influence on students' academic performance.

In Kenya, a study was conducted on the factors that contributed to poor performance in Kenya Certificate of Secondary Education in public secondary schools in Kericho sub-county, Kericho County. A descriptive survey design was used. Data was collected from 21 secondary schools, and a sample of 16 head teachers, 64 teachers, 128 form four students, and 32 parents. Data were analysed by frequencies, and percentages. The results showed that the level of income of parents, parents' level of literacy, and parental education, contributed to poor academic performance. The government should improve on free education policies and provision of more funds and materials for the upliftment of the educational system (Onderi, et al, 2014). Other studies conducted by Altschul, (2012) in Mexico showed that there was a strong relationship between parental income and children's academic performance, whereas, Suleman, et al (2012) revealed that parental income level affect the academic achievement of secondary school students. Egunsola, (2014) in a study conducted in Nigeria revealed that parental economic (income and affluence) to have moderate correlation with students' performances in agricultural sciences at the secondary schools, whereas, Zhang,(2011) in a study in China established that parental income had effect on children's academic results. Ogweno, et al (2014) in a study conducted in Kenya found that parental income had no significant on students' academic performance in agriculture in secondary school students. Finally, Sukor, et al (2012) in a study in Malaysia established students from high socioeconomic status scored higher compared to students from low socioeconomic status.

The studies on related home factors under the study revealed that some contradict, whereas others concur to each other. Hence the present study will attempt to determine whether home factors concur or contradict with the past studies. However the study has departed from already conducted studies. First, it revealed that the past studies were not based on home settings, in that the studies were carried from school setting perspective, thus the present study attempts to determine how home factors influence students' academic performance based on home setting perspective. Secondly, students academic performance was based on few selected subjects, whereas the present study was based on all subjects, students' registered for in the national examination, so as to reflect the general academic performance. Thirdly, most studies were conducted in boarding schools, as this did not reflect the of home setting where students come from, as students commute daily from home to school and back to home, whereas this study focused only day schools, so as to determine how home factors under the study influence students' academic performance.

The Bronfenbrenner (1979) Ecology system theory on environmental interconnectedness and its impact on human development and growth was utilised in this study. Which suggests that individual's ecological environment can be described as having different structures that are nested together, resulting in the total environment. The inner level consists of the individual and his or her immediate setting, with subsequent levels following in an interconnected manner. This inner level is referred to as the micro-system, which is followed by the mesosystem, exosystem, and macrosystem. The microsystem includes all the activities, roles, and personal experiences of an individual within a particular setting with certain characteristics. A setting can be any place where an individual interacts daily with other humans. The events that take place within that setting can be recorded as being similar for many different people. However, students' microsystem level is the individual meaning or interpretation assigned to each event that makes environmental factors relevant in the study of human ecology.

The second level is referred to as the mesosystem, which combines the activities of two or more settings for the individual. Settings such as work, and school would be included in this category. When a person moves in to a new realm in society he or she is operating within the mesosystem. Thirdly, the exosystem includes settings that do not necessarily involve the developing individual, but may still manage to affect that person from more distant channels. Examples of this would include events in the lives of relatives or peers that do not affect the individual directly, but influence a person who has a close relationship with the individual. The effects will generally trickle through to the center individual. The educational implication of this theory was that a public day secondary school students operate within the two systems (microsystem and mesosystem).

During the school hours, a student interacted with teachers, students, and other school staff this constituted a micro-system. In the student's home environment, interactions involved that of the parents, relatives, and neighbours, these were the features of a mesosystem. If the two interactions were healthy, there would were be good performance, and vice versa. Bronfenbrenner's ecological systems model was suitable because it focused heavily on environmental, and external factors, Bronfenbrenner admitted that, while a person ecological environment had a great effect on individual development, it was the individual perception of the environment that really matter and not how the environment actually existed in reality.

Lastly, ecological systems theory had one demerit in which it did not address individuals who developed within extremely difficult environmental circumstances, such as severe poverty or abuse and still go on to became a well-adjusted, successful members of the larger society. These individuals would appear to be anomalies within the system. How can ecological systems theory explain these individuals' immunity to harsh external influences, while the majority of humans are irreversibly influenced, if not altered, by negative environments? Even with its unanswered questions, ecological systems theory provided a solid, common-sense approach to the study of human development. Researchers in the field of education can apply Bronfenbrenner's work to a variety of topics, such as the effects of a student's external environment on his or her academic performance.

A conceptual Framework in this study, is that the independent variables were home factors which included: parental level of education, and parental income which predicted the students' academic performance in mean points(12 - 1) and grades(A - E) attained, which was the dependent variable, which were categorised into four as follows: Excellent(A to A-); Good(B+ to B-); Average(C+ to C), and Below average(C- to E). The extraneous/intervening variables included; student's aptitude, school administration, school facilities, and class size. These variables were controlled through randomization, in order to create representative samples that were similar in all the aspects that could influence the dependent variable. This conceptual framework forms the various concepts that are related with theoretical framework in that home environment under investigation was within micro system included: parental level of education, and parental income, which operate both within micro system, since the student had close interaction with parents in terms of advice, provision of needed studying/learning materials, and being role model to be emulated by the student. At the same time, it also within mesosystem level of interaction, because parents acted as a link between the student, and outside world.

According to Etelej (2011), the statistics summary of results from KCSE 2010 to 2013, are not encouraging. In 2010 KCSE results had 260,966 (73%) candidates scoring C, and below, whereas the examination was sat by 357,488 candidates, only 96,522 (27%) obtained mean grade of C+, and above, which is considered the minimum university entry benchmark. Likewise in KCSE 2011, out of 411,783 candidates, 119,658 (29.1%) scored C+, and above, whereas C, and below are 292,125 (70.9%). Ndiga, Mumuikha, Fedha, Ngugi, and Mwalwa, (2013) observed that in KCSE 2012 results 308,739 (72.2%) students scored grade C-, and below; whereas only 123,704 (28.6%) students scored grade C+, and above. The same trend was observed in 2011, and previous years.

According to Kipkelion, SCDEO Annual Report (2012) the performance of Kipkelion Sub-County in KCSE has been dismal for the last five years (2007 - 2012), since it was created in 2007 from the former Kericho District. In which out of 7238 candidates for the period (2008-2011), those who scored C+, and above constituted 1731 (23.92%) while those scored C (plain), and below are 5507 (76.08%). Thus, out of this statistics it showed that the overall performance was very low with the whole Sub-County producing only 1731(23.92%) out of 7238, in which boarding schools produced a significant number of 724(38.82%) out of 1865 candidates enrolled in KCSE examinations compared with 1007(18.74%) out of 5373 candidates from day secondary schools who did the same examination.

Further, from the same statistics, students who attained B+, and above for direct entry to university in the whole district were 221(3.05%) out of 7238, in which boarding schools produced a significant number of 106(5.68%) out of 1865 candidates enrolled in KCSE examination compared with 115(2.14%) out of 5373 candidates from day secondary schools who did the same examination. From this statistics, one could falsely conclude that day secondary schools were leading in producing students to university having a number of 115 students, whereas boarding school with a number of 106 students. This was also more worrying that 3.05% students joined university through direct entry, and the larger percentage of 96.95% did not join direct university for higher education. These statistics bore a serious implication on students' academic performance in the sub-County. In that, day-scholars who form the majority of Sub-County secondary school students, face more challenges which affected their performance, other than those faced by boarders. This study intended to determine how parental level of education and parental income influence academic performance of day-scholars in public secondary schools guided by the following objectives, questions, and hypotheses.

The objectives of the study were:
i.   The influence of parental level of education on students' academic performance.
ii. The influence of parental income on students' academic performance.

The study was designed to answer the following questions:
    i.   Does parental level of education influence students' academic performance?
    ii.   Does parental income influence students' academic performance?
The research hypotheses:
  Ho1: Parental level of education does not significantly influence students' academic performance.
  Ho2: There is no significant influence of parental income on students' academic performance.

In Kenya, performance in national examinations determines the type of training, work, and future opportunities for further education of the student. However there are many factors that might hinder the academic performance of a student. This study sought to determine the influence of home environment on performance in public day secondary schools, because majority (85%) of schools in Kipkelion Sub-County are public mixed day secondary schools, in which both boys and girls learn in same environment and commute daily from their homes to school and more so they registered low academic performance. It was therefore, imperative to determine the magnitude of the problem of low academic performance in order to address factors that militated to poor students' academic performance in the Kipkelion Sub-County.

It was assumed that all secondary schools were adequately equipped. Most of them were public mixed day secondary schools (36 out of 42). The students' population in these public mixed day schools were 5373, whereas, 1865 were from boarding schools. Out of these students who had sat KCSE for the last four years, only 1731 (23.92%) attained C+, and above, while majority 5507 (76.08%) attained C (plain), and below. Hence, the study aimed at determining the extent to which home environment influence the student's academic performance as majority of students were day scholars. (Kipkelion, SCDEO Annual Report, 2012).

The study findings would be significant to education stakeholders and policy makers in formulating policies that are geared toward enhancing education for day-scholar students. This would benefit Teachers by making teaching and learning process more effective and early syllabus coverage, since students would have enough time, learning resources at home, parental assistance, and conducive home learning environment to continue with studies at home, or do assignments. This will enable teachers to monitor students' academic performance. While Parents, would be made aware of requirements and the roles they need to play in providing conducive home environment for example shelter, pay school fees for student. Lastly, students would appreciate the value of education beyond classroom and thus do extra assignments at home, because learning occurs anywhere provided the conditions are favourable. It will also provide information on improvement of academic performance by bring all stakeholders together through collective policies and teamwork to ensured each one, play their roles and consequently improve quality of education.

The study was conducted in Kipkelion Sub-County, and focused on public day secondary schools, since the students commute from their home to school daily. It focused on the following variables: parental occupation, parental level of education, parental income, number of siblings, and learning resources at home in order to determine the extent to which they influence students' academic performance. The study comprised of 210 participants in form four from 10 public mixed day secondary schools within the study area that presented 2132 candidates for the 2013 National Examinations under the 8-4-4 syllabuses. The findings of the study would be generalized to schools in the districts, and the whole country with the same characteristics of being public mixed day secondary schools.

Due to inaccessibility of those students who have sat for KCSE examination in the previous years, the study focused on 2013 form four candidates using their mock results from 10 public mixed day secondary schools in Kipkelion sub-County to solicit the responses on home factors, since they have been in day schools for more than three years. Also, the use of questionnaires might cause anxiety, due to examination related phobia. However, the researcher explained to the respondents the significance of the study and that their responses should be treated with confidentiality and used for the study only. The assumptions were that, the respondents would cooperate during the study, give the required information, sample came from the various environmental/home settings and responses would be true and reliable concerning factors affecting students' academic performance and the records of the sampled schools would be true and accurate.

Method
Participants
The study had, 2132 form four students selected as the accessible population, as they had been in the system for the last three years and were therefore considered able to provide appropriate responses. Furthermore, they were preparing for KCSE examination which would reflect how they had been studying in various home environments, they were also considered mature enough in terms of age and education, to understand their family background. Kipkelion Sub-County had 42 public secondary schools, out of these, 9 (21.45%) were girls' schools, 3 (7.13%) were boys' schools, while 30 (71.42%) were mixed schools. Out of these, 11 (26.19%) were boarding schools and 31 (73.81%) were day schools with 2132 form four students attending public mixed day secondary schools. The researcher used 10 (32.25%) schools out of 31 public mixed day secondary schools. These represent thirty

30% of the 31 district public mixed day secondary schools which concurs with Kombo, & Delno (2006) that says that a sample of 30% is a representative of a population to be studied.

Stratified random technique was used to identify sample size of respondents, where respondents were divided into two strata on the basis of gender (boys and girls), from each stratum of (804 girls and 1328 boys) which presented a ratio of 2:3. This ratio was used to calculate a proportionate number of students from each gender to participate in study. Hence, from the accessible population of 2132, approximately 210(10.33%) students were sampled, which concurred with Mugenda, & Mugenda (2003) that sample size of 10% is appropriate for the study. Then, using the ratio of 2 girls to 3 boys, the number of students from each gender that were selected to participate in the study was calculated, which were 84 girls and 126 boys, which was then divided by 10 to get representatives from each gender. Remarkably, in every school 8 girls and 13 boys

Materials

Data was collected from students in the 10 selected secondary schools using questionnaire and a document analysis guide. Questionnaire was suitable because a lot of information was collected over short period of time and population was literate. Both closed and open-ended questions were used in the questionnaire. Closed – ended questions required the respondent to respond to items either by ticking [√] or choosing alternatives provided. Open – ended questions had no alternatives to choose from and the answers had to be written in full in order to support and check the alternative choice responses given by the respondent.

Document analysis was used to determine the student's academic performance, which was obtained from Mock analysed results sheets. The information on dependent variable helped to compare the academic performance between students from different home environment. This was a reflection of final KCSE Examination. The scoring method used in the questionnaire required the participants to write either YES, NO or a tick [√] against the box with the suitable response in the item. The scores evaluated the extent to which the variables of factors under study relate to the respondent. participated in the study. Hence, a sample size of 210 respondents were selected from form four 2013 KCSE candidates.

Research design

This study employed causal comparative design, because home environment (factors) which served as the independent variable could not be directly controlled by the researcher because their manifestations had already occurred and were not manipulatable (Mugenda & Mugenda, 2003).

Procedure

The researcher employed multistage sampling technique, as follows: Because the study focused on public mixed day secondary schools, the researcher used purposive sampling technique to select only all public mixed day secondary schools from a list of secondary schools in Kipkelion Sub-County. Simple random sampling method was employed to select 10 public mixed day secondary schools by writing all names of public mixed day secondary schools in small pieces of papers, fold and put in a box, then pick at random 10 schools, this gave each school equal and independent chance of being selected to participate in the study.

From 10 schools, the researcher also used purposive sampling method to select form four students. In each sampled school the researcher employed stratified random sampling method by dividing population of respondents to sub-groups of boys and girls, then from each sub-group the researcher used simple random sampling method to select students who participated in the study by picking the first 8 girls' and 13 boys' names in class list with odd serial numbers from both boys' and girls' class list.

Questionnaires were pre-tested before the commencement of the real study to establish the reliability of the instruments. The piloting involved trying out the designed instruments on a few students bearing similar characteristics to those of the large group of the respondents. The researcher carried out pre-testing of the instruments in three of the identified public mixed day secondary schools and these schools were excluded real research study.

The researcher visited the schools to sought permission from either school principal, or class teacher, and briefed them about the purpose of the pilot. The school authority either introduced researcher to students, or they administered questionnaires by explaining to students on how to answer the questionnaire. After which students were divided into sub-groups of boys and girls, and from each sub-group, 8 girls and 13 boys were randomly selected by picking the first 8 girls and 13 boys from the class list having odd serial numbers to participate in the pilot study. The questionnaires data were analysed in which a reliability coefficient of 0.78 was obtained and then revised accordingly upon receiving the pilot study feedback. Hence, pilot study was thus undertaken to ascertain the reliability of main research instrument and also do corrections.

Test - retest technique was used to test the reliability of the research instrument. Coolican, (2007) suggested that test - retest with a range between .75 and .80 was reliable. In which questionnaire were administered twice to the same group after two weeks interval period. Data obtained from pilot study were used to determine the

reliability of the researcher instrument by using Pearson product moment correlation to measure the reliability of the items in the questionnaire. In which the results yielded a reliability coefficient of r = 0.78 and thus was considered to be good and be relied upon in carrying out the study.

The content validity of the instrument was determined by the researcher, by discussing the items in the instrument with the supervisors, colleagues and other lecturers in the Department of Psychology. For the research instrument to be considered valid, the content selected and included in the questionnaire must also be relevant to the variables being investigated. Construct validity was assimilated to the research tools by thematically arranging related items in the questionnaire with reference to already used and related questions.

The researcher visited sampled schools to administer the questionnaire and explained the purpose of the study and clarified where necessary. The researcher ensured the sampled respondents were the ones supplying data. Before the questionnaire was administered to students in each school, either the School Head or the Deputy Head introduced the researcher to the respondents in their respective classrooms. Then the researcher explained to the students the purpose the study and thanked the students in advance for accepting to fill in the questionnaire.

The questionnaire was self administered type where it was presented to the students and responded to it by reading through the questionnaire. The purpose of inquiry was explained and then left to the respondents alone to complete the questionnaire. Since the questionnaire had both open and closed-ended items, the way of answering varied. The closed – ended items required the student to check from alternatives and put a tick [√], or write YES, or NO where applicable to the student. The researcher asked the students to use permanent ink pens. The researcher collected the questionnaire after one hour, when all respondents had answered all questions.

The data collected was coded and keyed in into the computer using the statistical package for social sciences (SPSS) version 20.0 as follows: students' bio-data was used to compile the of the students in which male and female were coded 1 and 2 respectively, whereas age was coded 1 for below 15 years, 2 for 16-17 years, 3 for 18-19 years, and 4 for above 20 years, and home environment was coded 1,2, and 3 for rural, peri-urban, and urban respectively. Students' academic performance was based on Kipkelion Sub-County Mock Examination which was categorised on mean grade points range from 1 to 12 points (E to A grades) as follows: 1-5(E to C-) below average, 6 - 7(C to C+) average, 8 - 10(B- to B+) good, 11 - 12(A- to A) excellent which were coded 4, 3, 2, and 1 respectively, in order to understand the students' academic performance in mock examination.

In parental level of education attained by the parents were grouped into three levels: University/diploma (high) coded 1, post secondary certificate/KCSE certificate (medium) coded 2, and KCPE/none (low) coded 3 and compared against the students' academic performance.

In parental income (in Kenya shillings) was categorised into four groups: very low(less than 5000) coded 1, low (5001-10000) coded 2, medium (10001-20000) coded 3 and high (above 20001) coded 4 and main source of income was grouped into three as follows: employment, coded 1, business, coded 2, and farming, coded 3 and compared against the students' academic performance

Descriptive statistics and inferential statistics was calculated and summarized for presentation and analysis of the data. A 0.05 significance level (95% confidence) was used in the study. The responses from the samples were summarised using of descriptive statistics; frequency, percentages and means. Inferential statistics was used : ANOVA, to determine how independent variables influence dependent variable.

The researcher sought introductory Permission letter to carry out the study from the Dean, school of education and Department of Education Psychology of Moi University after clearance from the supervisors. This was used to process an official permit from the Ministry of Education, under National Commission for Science, Technology and Innovation-NACOSTI. On acquiring the permit the researcher reported to the County Commissioner, and County Director of Education. An introductory letter by the researcher explaining the nature and the purpose of the research was availed to the SCDEO, and principals of the sampled schools.

The respondents were asked to give consent before participating in the study. They were assured of confidentiality and anonymity was observed by the researcher by exercising respect for individuals' rights so as to safeguard their personal integrity. No names or personal identification numbers were reflected on the questionnaires except the numbering for questionnaires, which is for purposes of coding and thus, data editing and analysis. The researcher tried to avoid any psychological threats by reassuring respondents of availability of results of the study for their own consumption. Consequently, a copy of the findings was to be given to Kipkelion Education Office and any educational stakeholders interested in the results of the study.

Results

The rate of return of completed and usable questionnaires and document analysis were 210(100%). This gave analysis strength and authenticity to the outcome of the research study, as all issues under the study were captured.

The students' data on gender, age, and home environment of their residence revealed that 130(61.9%) males and 80(38.1%) females, were sampled, males performed better, (M = 5.03) than females (M = 4.20). Majority of

students 151(71.9%) were aged between 18-19 years, followed by 40(19%) students aged 16-17years, those above 20 years were 18(8.6%), whereas those below 15 years was 1(0.5%), and students above 20 years performed better (M = 4.97) compared to other age categories. In terms of residence, majority of students 186(88.6%) were from rural settings, whereas a small proportion were from both peri-urban 16(7.6%) and urban 8(3.8%), in which those students from peri-urban had better academically, with a mean score of (4.92) than students from other home environment.

The general students' academic performance was categorised into four groups as follows: excellent, good, average, and below average based on grading system of mean scores points(1 to 12) and mean grade (E to A) in which majority of students 148(70.5%) performed below average (M = 3.62, SD = 1.174), followed by average students 38(18.1%), (M = 6.46, SD = 0.502) and small proportion of students 23(11%) attained good grades of (M = 8.55, SD = 0.798), and only 1(0.5%) student attained highest grade of excellent, (M = 11) an indication that the general students' academic performance was below average. Generally, students' academic performance is below average with a mean score of 4.71 as categorised in the conceptual framework that mean scores 5.00 (C-) and below are academic performance below average.

To address objective one, which stated: to investigate the influence of parental level of education on student's academic performance, students' responses on parental level of education were categorised into three levels as follow: high, middle, and low and analysed to determine whether parental level of education had significant influence on students' academic performance, Which revealed that majority 147(70%) of students were from parents with low level of education with a (M = 4.70, SD = 2.103), whereas 47(22.4%) were from parents with middle level of education with a (M = 4.72,   SD = 2.010) and 16(7.6%) were from parents with high level of education with a (M = 4.79, SD = 2.026). The academic performance in the three levels parental of education did not depict major differences in the mean scores, thus parental level of education might not have influence on students' academic performance.

To test the null hypothesis, HO_1 which stated: parental level of education has no significant influence on the student's academic performance. The students' responses on parental level of education were analysed using ANOVA, parental level of education has no significant influence on students' academic performance F (2, 207) = 0.014 significant at $0.986 > p = 0.05$. Thus, the null hypothesis is accepted, which stated: parental level of education had no significant influence on the students' academic. This implied that parental level of education did not influence students' academic performance.

To address objective two of the study, which stated; to find out the influence of parental income on student's academic performance, students' responses on main source of income were categorised into three levels as follow: business, employment, and farming. Whereas monthly income estimates were categorised into: very low, low, medium, and high and analysed to determine whether parental main source of income and monthly estimates had significant influence on students' academic performance,
which revealed that majority of students 181(86.7%) who stated that their parental main source of income estimates come from farming, had (M = 4.72, SD = 2.000), whereas 15(7.7%) of students who indicated that parental main source of income come from business, had a (M = 4.51, SD = 2.495) which were low mean scores, this could be linked to inability of parents to provide adequate learning resources, compared to 14(6.7%) of students who stated that parental income come from employment with a (M = 4.86, SD = 2.545) performed better, and this could be attributed to ability of parents to provide the learning resources.

In parental monthly income estimates, majority 168(79.2%) of students stated that their parental monthly income estimates were very low, had a (M = 4.68,   SD = 2.116), whereas, 29(13.7%) of students who stated that parental monthly income was low, had a (M = 5.13, SD = 1.968), whereas 6(2.8%) of students who stated that parental monthly income was medium, had a (M = 4.94, SD = 1.706), and 7(3.3%) of students who stated parental monthly income was high had a (M = 4.62, SD = 1.615), implying that high monthly income could afford parents to adequately meet the students' educational, which was reflected in better academic performance.

To test the null hypothesis, HO_2 which stated: there is no significant influence of parental income on the student's academic performance, students' responses on monthly income were analysed to determine whether parental income had influence on academic performance using ANOVA, revealed that parental income has a significant influence on students' academic performance F (3, 206) = 3.370 significant at $0.019 < p = .05$. Thus, null hypothesis was rejected; and alternative hypothesis was accepted, which stated: there is significant influence of parental income on the student's academic performance; this implied that parental income had significant influence on the student's academic performance.

Discussion

This research focused on influence of home environment on home factors which included: parental occupation, parental level of education, parental income, number of siblings, and learning resources at home on academic performance in public mixed day secondary schools in Kipkelion Sub-County on 10 sampled schools, each with 21 students from 2013 form four candidates. Generally, students' academic performance was below average (M

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= 4.70, C-), an indication that kipkelion sub-county students' academic performance was worrying. This observation concurred with Kipkelion, SCDEO Annual Report (2012) that the performance of Kipkelion Sub-County in KCSE had not been very encouraging for the last over four years (2007 - 2012). Thus, the study was aimed at determining the root causes of low students' academic performance among public day secondary schools in Kipkelion Sub-County, which agreed with Oloo (2003) that a major problem affecting the students' academic performance in Kenya was a home environment of the day school students that was not conducive to reading.

The study found that students from both low and high parental level of education performed poorly academically. An indication that students from high parental level of education, either their parents do not invest on students' education by providing needed learning resources at home, or students did not optimise learning resources the parents provide them, or could be further be explained in that the parents with high level of education were not role models to students, did not expose the students to the benefits of education, or did not actively participate in student's academic progress and school activities. Whereas students from low parental level of education could be lacking learning materials needed to improve their academic performance.

Analysis using ANOVA to test null hypothesis it revealed that parental level of education had no significant influence on students' academic performance. Hence, null hypothesis was accepted, this implied that that parental level of education had no influence on students' academic performance. This disagreed with the studies conducted in China that showed that parental level of education had effect on children's academic results (Zhang, 2012). Also, in Pakistan, Suleman, et al. (2012) observed that parental level of education affect the academic achievement of secondary school students, which further disagree with study conducted in Spain that found that parental level of education was positively associated with better cognitive performance in Spanish adolescents.

In studies conducted in Nigeria, Ogunshola,(2012) agreed with these findings of the study, that parental educational background did not have significant effect on the students' academic performance, likewise the findings of Osuafor and Okonkwo, (2013) established that parental level of education did not have significant influence on study in biology, although, it conducted based on one subject. Further, contradicted by Alokan, (2013) that revealed that there were significant differences between academic performance of students from parents with high educational background and the students from parents with low educational background. Similarly, Egunsola, (2014) that found that the parental educational qualification correlated (r = 0.73) strongly to students' academic performance and so to Muruwei, (2011) that parental level of education affects children's academic performance.

Farooq, (2011) in a study conducted in Pakistan found that parental education had a significant effect on students' overall academic achievement as well as achievement in subjects of Mathematics and English. In studies conducted in Kenya, Ogweno, et al. (2014) found a correlation between mothers' level of education and students' academic performance using pearson correlation and no significant correlation on fathers' level of education, whereas using multiple regression it was found that there was no significant influence of both fathers' and mothers' level of education on students' academic performance. Whereas, Ntitika, (2014) found that educational level of parents encouraged the students to work harder and achieve their goals, and helped the students to aim higher in their educational circles, thus influenced their academic performance. Similarly, Muola, (2010), Awour, (2012), and Onderi, et al. (2014) found that parental level of education influenced students' academic performance.

From the study, majority of the students indicated that main parental income was from farming, whereas a small proportion of students indicated that parental income was from employment and business. Though academic performance of students who stated that parental income were from farming and business was low compared to students who stated that parental income was from employment. An indication that farming and business could not address students' educational needs as reflected in low mean scores as compared to employment which had highest mean scores and this could be linked to constant and consistent income unlike parental income from farming and business which fluctuates. On parental monthly income estimates, majority of students stated that parental monthly income estimates were low, and had low academic performance compared to students who indicated that parental monthly income estimates were high, and had better academic performance. An indication that parents with high monthly income estimates were able to adequately meet students' educational needs as reflected in better mean scores.

On testing null hypothesis, ANOVA results were significant, hence null hypothesis was rejected, and alternative hypothesis was accepted. An indication, that the parental income had significant influence on the students' academic performance. This agreed with studies by Lacour, and Tissington, (2011) in a study conducted in United States that found that parental income and source of income affect students' academic performance, Altschul, (2012) in a study in Mexico found that family income contributed to youth's poor academic performance. Sukor, et al. (2012) in a study in Pakistan revealed that students from high socioeconomic states scored higher as compared to students from low socioeconomic status, and Zhang, (2012) in a study conducted in china revealed that family affect children's academic performance.

Furthermore, it agreed with Chandra, and Azimuddin, (2013) a study in India found that students belonging to high socioeconomic status category had higher academic performance, as compared to average socioeconomic status students. In studies conducted in Nigeria, revealed that there was a strong correlation (r = 0.60) between parental economic status(income and affluence) and students' academic performance in agricultural science, whereas Ushie, et al. (2012) showed that students whose parents had better jobs and higher levels of income tend to have higher levels of literacy performance. Likewise, studies conducted in Kenya, indicated parents who were economically stable were in a position to provide resources and materials and enroll their students to the schools of their choice, thus influencing their academic performance (Ntitika, 2014). Similarly, Awuor, (2012) found that low parental income adversely contributed to poor academic performance, so to Onderi, et al. (2014) which revealed that the level of income of parents contributed to poor students' academic performance. However, a study by Ogweno, et al. (2014) contradicted these findings, which found that there was no significant influence of family income on students' academic performance, this deviation could be attributed to use of one subject (agriculture) to predict on students' entire academic performance.

From the findings of the study, it was concluded that, student's academic performance was influenced by parental income. All these factors pointed on one common denominator: income. Parents should be sensitised on how generate income so as to afford to pay school fees, and this would have a direct, and positive bearing on student's academic performance, as shown that the socioeconomic factors affect access to education, and to worsen the problem was coupled by parent's education level being too low to understand issues related to the importance of education.

From the findings, home environment have significant influence on student's academic performance. Thus, all stakeholders should strive to ensure that students have a conducive home environment that supports the realisation of best students' academic performance. This move will address the problem of low parental income which make parents unable to adequately meet academic needs of the student. Furthermore, parents regardless of level of educational attainment, they should actively involve themselves in academic matters of the students, this shows the interest, and how education is positively valued, hence propelling the students to put more effort towards achieving higher academic performance.

This study recommends that government, local leaders, religious sects, MOE, teachers, and parents need to cooperate and strive to bring about change in creating a conducive home learning environment, where students can study at home, just as in school, which include: government subsidy on school fees in day secondary schools and/or extend free education to all day secondary schools to cater for students from parents of low income and to improve the students' academic performance, parents, and all other stakeholders should be encouraged to invest in the education of their children by pooling their resources together, so as to provide learning resources at home.

The study suggests further research on the extent of the influence of the home environment on academic performance on boarding secondary schools.

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