

Family Size As A Predictor of K.C.S.E Performance In Lunga Lunga Sub-County, Kwale County, Kenya

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This study purposed to investigate how family size influences performance of KCSE in LungaLunga sub-county, Kwale county, Kenya. This study aims to examine the influence of family size on performance of KCSE in LungaLunga sub-county, Kwale County, Kenya. Quantitative research method and cross-sectional descriptive research design was adopted in this study since they are appropriate for studies seeking to assess relationships between two or more variables. The population of the study was 21 head teachers, 12,117 student and 11,070 parents. All deputy head teachers, being the main informants, were selected to participate in the study. A sample of 10% was derived resulting to a sample size of 1,211 students and 1,107 parents respectively who were selected randomly in proportion to the 21 schools. Quantitative data was gathered by a questionnaire, interview schedule and collection form. Quantitative data was analyzed using descriptive statistics and presented on tables and graphs. Regression analysis was conducted to test the study hypothesis. Findings inform the policy makers in the education sector on best ways to equip schools and actively engage parents in school development agenda to steer performance. Findings are also contributed to literature development in the education sector.

Key words: family Size, K.C.S.E. Performance Form Four Students, Kwale County

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Introduction

Education is seen as a process that aids people in realizing their inherent potential in order to operate well and fill their respective roles in the society to which they belong. According to Cabrera, Peralta, and Kurban (2018), culture is transmitted in terms of continuity and growth, as well as for the purpose of spreading information and ensuring social cohesion as a social institution of man. As a result, families have a huge and important impact on how well their kids do in school. For example, educated parents would place a greater focus on academic performance because they are able to recognize the value of the connections between parents, students, schools, and communities as a result of their education. As a result, these parents prioritize education partnerships in order to support their children's educational aspirations and academic success (Benner, Boyle, & Sadler, 2016)

Appropriate student development and sustenance depend on the home environment, where educated parents work hard to give their children a supportive learning environment at home while uneducated parents frequently fail to do so. The idea is that parents who are educated encourage their kids to work hard on their personal growth. The basic amenities in students' homes, which are connected to their parents' educational levels, have a direct impact on their academic performance (Shamah et al., 2022). The amenities and surroundings at home equip children to meet the looming problems of the upcoming social, political, spiritual, and educational spheres of life. The attitude of parents toward their children and their development instills permanent values, such as diligence, honesty, optimism, integrity, and hope, and the children grow up to become the greatest future asset of the society in particular and the nation in general (Azhar et al., 2019). This is in addition to the family environment and the parents' educational status.

The Statement of the Problem

All Kenyans will have access to equitable, high-quality education, according to the country's Education Sector Performance Vision 2030 (MoE, 2016). Despite the complexity of the process, academic success is one of the key components (UNESCO, 2019). The importance of education in improving Kenya's economic outlook needs to be emphasized further. Therefore, it is a concern for all parties involved in education, including donors, the government, and NGOs, to invest a suitable number of resources in the field to boost learning and, eventually, Kenya's economic growth and development.

The 2019 KCSE results in Kenya represent a significant improvement over all prior years. As indicated by the rise of 2478 pupils from the total number of candidates with A-minus to 5796, candidates for the KCSE in 2019 performed

significantly better than those who took the exam in 2018. The proportion of candidates who selected to enroll in public universities also increased. However, based on 2020-2022 national examination results, the trend has slowed. Still, the larger numbers of schools that perform poorly in national examinations are found in marginalized areas and along the Kenyan coast region. The schools fail to attract or even motivate teachers and learners and constantly post poor grades, report high cases of drop-out, low enrollment and school repetition among others. In the past five years, public secondary schools in the LungaLunga Sub-county have posted poor results in national exams, with few students earning the minimum grade required for entry into a university of C+ or higher, a small percentage (about 11%) earning a mean grade of C minus to C plain, and the vast majority (over 80%) earning a mean grade of D+ or lower, rendering them ineligible for advancement to higher education. This has raised concern among stakeholders in the education system, hence the need to undertake this analysis.

The region is also faced with extreme cases of poverty thus being problematic for parents to support school activities and development agenda to improve school infrastructure and shelter the learners from harsh weather conditions or even to provide adequate learning materials for students. LungaLunga being in dry and poor region of the Kenyan coast, where parents are not able to support schools financially, the schools from the region also fails to attract competitive teachers who prefer to work in regions with lesser levels of economic hardships. However, no known study has tackled the effect of parental social factors as a contributor to poor performance in Kwale County public secondary schools. This leaves a gap that needs to be addressed. In light of this, current study examines the family social factors at public secondary schools in LungaLunga Sub County, Kwale County, Kenya, that affect students' performance.

2.2.1 Family Size and Academic Performance

Young learner's engagement in academics is influenced more by family size and birth order, with moderate families generally having greater academic accomplishments. With knowledge of family size, it becomes possible to compare families' status. The number of family members has an impact on access to education because it influences the way responsibilities and resources are distributed. The more the number of offsprings in a particular family, the higher the demand for childcare in terms of labor especially at early stages of child development (Ella, Odok, & Ella, 2015). On the other hand, an additional adult woman or an older sibling could lessen opportunity cost of students' time by providing alternatives for family chores. Thus, this increases the chances of enrollment and schooling level among children, especially girls in a family (Chege&Sifuna, 2006; Ramirez & Carpenter, 2018). A UNESCO report (2001) indicated that parents of large-sized families are more often expected to make multiple payments for school fees, provide learning inputs such as uniforms, textbooks, and still make contributions towards maintenance or building physical school structures, hence finding it difficult to enroll children to school. However, these social-economic factors have not been empirically tested in LungaLunga, Kwale context.

Jumaa (2003) investigation demonstrated that about 82% of school kids who ultimately depart from school system at all levels are from large-sized families. This suggested that parents or guardians with large-sized family responsibilities are habitually confronted with numerous social difficulties and thus, are not capable of meeting all school needs. Consequently, such parents find it burdensome to retain learners in secondary level education system (Boyle, 2004). Alongside the family size, this study incorporates other aspects of family social-economic and their linkage to academic performance in secondary schools at the Kenyan context.

Lee (2019) discovered that smaller family sizes result in a lessened economic dependency ratio, relieving some of resource constraints that could compel families to make unfavourable choices regarding young learners' education investment. Therefore, small size families will rarely be compelled to make education choices between girls and boys or between the eldest versus other siblings. In addition, Frances et al. (2017) put forward that small-sized families could redefine family responsibilities past those traditional family prospects; hence social viewpoints are related to schooling of girls as measured up to boys, and of younger children as compared to first born children. This study however focuses on performance of learners in totality without relating the factors to either gender.

In Ghana, existence of children younger than six years in a family have a propensity to augment the likelihood of exposing the older siblings to paid labour at the expense of attending school and the effect is felt more by the girls who assume the roles of the mother (Hunt, 2008). However, presence of female adults within such families increases the possibility of girls being sent to school. Still in Ghana, it was demonstrated that for every extra child, the presence considerably amplified likelihood of elder girls' withdrawal from school to assume childcare roles. While the study focused on retention of learners of all ages in primary schools, current study has its focus on performance at national examinations and how the social-economic factors of a family influence it.

Shen (2017) analyzed age size and academic progress in middle school by collecting data through interviews conducted on learners. The author found that young learners from small-sized families have higher probabilities to participate in formal learning and quickly adjust to the school setting. They are also found to be more expressive in the classroom as contrasted to introverted children from large-sized families. The birth of younger kids to large-sized families has been largely related to likelihood that an older child, preferably the female sibling will withdraw from school (Ahawo, 2018). In addition, in a large family, attention directed to individual child in terms of interactions in the study life could be limited. During the early stages of life, the oldest child usually benefits from good attention and warmth. Parental interest on children tends to take a declining trend with the increasing number of siblings which places the children born later to a family at the verge of withdrawing from learning at early stages of school life.

While the study focus was family size, present study involves a broader perspective of family social-economic factors and their influence on academic performance in secondary school setting. Data will also be collected from several sources using three research instruments.

Social Learning Theory

The study was founded on Albert Bandura, a psychologist, created the social learning theory in 1986 as an alternative to the earlier work of Skinner, another psychologist who is well-known for having influenced behaviorism. According to the social learning theory, people learn social conduct through seeing and copying the actions of others. Study habits and other family traits like discipline can affect a student's ability to learn. College academic success can be strongly predicted by the number of study hours per week spent on college work and the desired degree. These homework habits are instilled in students at a young age because to Bandura's (1986) social learning theory. The social learning hypothesis states that when parents set an example of disciplined behavior for their children, they create an expectation that their offspring will do the same. The habits and effects of those behaviors are practiced and taught to their kids (Bandura, 1994). As a result, it is likely that parents who have attained their objective of earning a graduate degree prefer to encourage their kids to develop disciplined study habits. Parents who did not pursue higher education are less likely to provide their children with numerous opportunities for observational learning so they can establish devoted study habits.

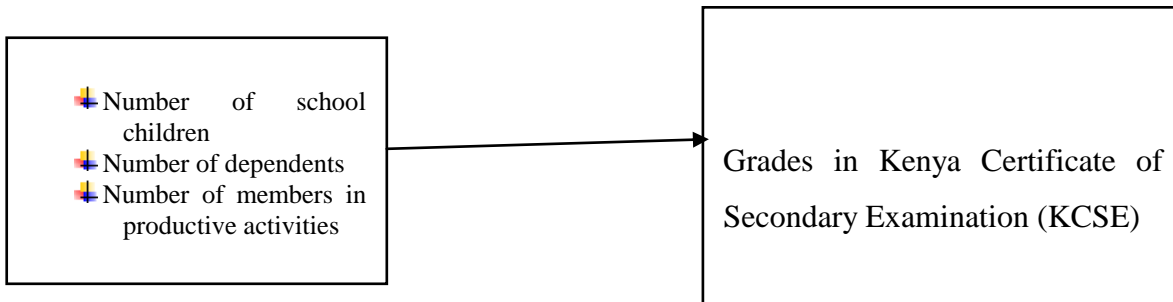
When it comes to education, social learning happens when children see their peers, parents, or teachers and learn by imitating their actions. It offers the chance for learning to take place at many levels and in a variety of situations, all of which emphasize the importance of motivation. According to the social learning theory, parents who did not experience the same levels of achievement and positive reinforcement in their own educational experiences would naturally shy away from taking on new academic challenges. On the other hand, parents who have received a college degree are more likely to have encouraged perseverance and skills in their kids by praising and recognizing their developing talents. This theory has been proven to be helpful in illuminating the proposed relationship between parental educational attainment and academic achievement.

2.4 CONCEPTUAL FRAMEWORK

The conceptual model shows the direct linkage between independent and dependent variables relationship.

Independent variable
Family Size

Dependent variable
Performance



Methodology

A research design is a plan that informs the research process of gathering, analyzing, and interpreting data. It's the researcher's blueprint for the instruments and methods employed to collect and evaluate information so as to answer the set research questions (Creswel&Creswel, 2019). Credible research designs contain a clearly defined purpose and is consistent between set research questions and projected research method. Cohen et al. (2007) delineate a research design as a framework for collecting and analyzing data that is appropriate to the research question. The study will adopt a descriptive survey design. Creswell and Clarke (2007) advocate for descriptive research design that engross producing data that is contextual, holistic and well detailed to answer questions with reference to current status of study subjects. This study adopted a descriptive survey design because it is simple and easy to understand a target population from analyzing a selected sample.

Study Location

The study was conducted in Kenya's Kwale County's LungaLunga Sub County. Kwale County, which has a population of 649,000 and is situated on Kenya's Southern Coast, has an area of 8,270 km². The region, which largely consists in dry and semi-arid terrain and is along the coast, stretches from ShikaAdabu in the south to Kinango and then southward to LungaLunga on the border with Tanzania. LungaLunga South sub-county has 21 public schools for girls, boys and mixed boarding and day (LungaLunga sub-county HR-education, 2023). These secondary schools have continued to perform poorly with most students ending studies at secondary school level despite posting of government teachers and infrastructural support from the county government.

Study Population

Bryman (2008) depict target population as all elements that meet the inclusion criterion in an analysis where the elements have common observable traits. The target population consisted of Twenty-one (21) public secondary schools hosting 12,117 students and 11,070 parents/guardians in LungaLunga Sub- County. Students and parents as well as the 21 school heads formed the basis of target population.

Sample Size and Sampling Procedures

According to Nachmias and Nachmias (1996), a sample size should be pegged on what researchers consider statistically viable. In this study, the 21 school heads were chosen as main respondents because they are well positioned to provide required information on KCSE performance for five years, yet still, the population was not large. According to Creswell and Clarke (2007), for descriptive studies, 10% or above is termed as enough for the entire study. Therefore, 10% and parents was used to select students of each public secondary schools resulting to sample 1,211 students and 1,107 parents respectively. The students were then picked randomly.

Instruments

Both primary and secondary data were gathered using three research instruments ie a questionnaire, interview guide and a data collection form as detailed in sections 3.71-3.73 below.

The Questionnaire

Quantitative data was gathered using a questionnaire. The survey instrument is designed to include closed-ended and open-ended questions. Closed-ended questions are used in gathering structured responses to allow for more concrete recommendations. The key benefit of close ended questions was that they are in direct usable form hence easier to analyze. The instrument consisted of six sections. Part one addressed the respondents' profile. Part two, three, four, five and six addressed information on family size, family income, ownership of property, and parental level of education respectively. Last part focused on performance of students.

The Data Collection Form

Secondary data for KCSE grades for five years was gathered using a data collection form. The information was sought from the school administration.

Interview Guide

Interview guide developed in line with the study variables was used to gather data from parents. This instrument was found suitable because not all parents could read or write hence challenges of using a questionnaire on them

Validity of the Instruments

According to Bryman and Cramer (1997), a test's validity is determined by how justified it is to interpret the results in light of its intended purpose. The validity of instruments is determined by the respondents' ability and willingness to provide the necessary information (Cooper, &Schndler, 2008). A questionnaire pre-test was conducted to ensure its validity. Prior to the actual research, a pilot study was conducted. It was including ten students who did not form the study's sample. The pilot study was done to assist the researcher in determining if the objects are ambiguous.

Reliability of the Instrument

Kimberlin (2008) further states that reliability estimates appraise internal consistency of instruments of measure, and interpreter reliability of instrument scores. The study employed Cronbach's alpha to verify the internal consistency. A result of 0.7 or higher indicates an acceptable level of internal reliability.

The pre-test respondents was not included in the actual research, but they helped to appraise the clarity of questionnaire before administration to the respondents. The questionnaire was also amended in order to create a final version for the survey.

Data Collection Procedure

Mt. Kenya University was first be approached for permission to conduct research. A research permit was acquired from National Council of Science, Technology, and Innovation. The District Education Officer (DEO) of LungaLunga Sub-County was given a copy of research permit and authorization from MKU. The DEO was further be requested to grant permission and an introductory letter to send to the headteachers of the participating schools.

The researcher distributed the study's instruments to the principals and teachers on agreed-upon dates and collected them upon completion. The researcher gathered primary and secondary data. The researcher administered the research instrument to students and parents in public secondary schools in LungaLunga sub-county, Kenya, with the assistance of research assistants.

Data Analysis and Presentation

Data analysis aids to bring meaning to the information gathered (Kothari, 2005). Yin (2014) refers data analysis to an understanding of the information accumulated with the aim of deciding steady examples and abridging the applicable subtle elements uncovered in the investigation. After data has been gathered via questionnaires, it was edited, handled blank responses, coded, categorize, and keyed into the Statistical Package for Social Sciences for analysis.

Descriptive and inferential statistics was generated and utilized to draw conclusions about the study's population. Descriptive statistics provided an outline of the sample such as measures of central tendencies, standard deviation, and range whereas inferential statistics measured the direction and strength of relationships.

Qualitative data gathered by interview guide was analyzed in narrations in line with the study objectives. The outcome of the data analysis was summarized and presented in figures and tables and followed by interpretations.

Ethical Considerations

This study sought in depth information to highlight and bring out information that shed light on family social factors in schools in LungaLunga Sub County. Nonetheless, discretion and privacy was accorded. Data was analyzed and reported in a way that a specific respondent or school cannot be linked to it. The researcher got approval and clearance from school of post graduate studies at MKU, permit from NACOSTI and approval by Kwale County Director of Education. The researcher acknowledged all works quoted through referencing. The researcher also ensured that the respondents willingly participated by filling a consent form and data was hand

Response Rate

This study carried out a census survey of 21 public secondary schools spread across LungaLunga in Kwale County. A total of one thousand two hundred and eleven (1,211) questionnaires were administered to the students. Twenty-one data (21) collection forms were distributed to the 21 head teachers in LungaLunga sub-county to seek secondary KCSE data for five years. To ensure high questionnaire response rate, teachers were regularly prompted to remind students to fill the tools during school breaks. Key informant interview was conducted on one thousand one hundred and seven (1,107) parents.

Table: Response Rate

Category	Response/ returned	Non-response /non-valid	Total	Percentage
Head teachers	21	0	21	100%
Students	994	217	1,211	82%
Parents	500	607	1,107	45%

Source: Research Findings, 2023

Variable	Indicators	No of Items (N)	Cronbach's Alpha (α)	Decision
Family size	Number of school children, number of dependents and number of members in productive activities	5	0.970	Excellent reliability

Table : Family Size

Indicator	N	Min	Max	Mean	S.D	SK	KU
Number of school children	994	1	5	3.890	1.906	-0.707	-0.374
Number of dependents	994	2	5	3.900	0.961	-0.631	-0.131
Number of members in productive activities	994	1	3	2.270	2.590	-0.980	-0.235
Aggregate Mean	994	1	5	3.3533	1.819	-0.772	-247

Table :Correlation Analysis Results

Variable	FS	FI	OPA	PEL	P
Family Size (FS)	1				

Findings Conclusions, Recommendations

This section summarizes the whole study, presents conclusions, recommendations

Summary of the Study Findings

The research aimed at exploring how the familysize influences academic performance of learners in public secondary schools in LungaLunga sub county, Kwale County, Kenya. The first objective sought to examine the influence of family size on performance of KCSE in LungaLunga sub-county, Kwale County, Kenya. The findings established that number of school children in a family was relatively high suggesting that implying that respondents agreed that their families had other school going sibling thus respondents concurred that number of other siblings in school plays an integral role in academic performance (Mean = 3.890). In regard to number of dependents scores, the respondents agreed that families were quite large (M = 3.900). The mean score of number of family members in economically productive activities attributes was moderate (M = 2.270). The family size may pose difficulties for learners to

manage perform academically due to parents labouring burden of bringing up large families which would consecutively be detrimental to learners' progress at school.

Conclusion

The aim of the study was to examine the effect of family socio-economic factors for academic performance in public secondary schools in LungaLunga, Kwale County, Kenya. Generally, the study reveals constraining socio-economic environment for learners hindered their academic progress. Based on study objectives the following conclusions can be drawn:

There exists a burden to cater for large families upon the parents which trickles down to the learners who are constrained to access basic learning resources. The large size of families has adverse effect on high school learners because the parents tend to give more attention to the younger kids in the family and fail to follow-up on academic wellbeing of high-scholars. Another challenging factor is that most families have one parent as a sole bread winner with most household members not engaged in economically productive activities.

Families had to face hurdles in regard to family income. Most families reported that parents were not in formal employment thus lacked regular steady source of living. Many families also lacked income from informal sources or any income from investment activities. Whereas most families owned cultivatable land, and livestock, they seemed not to assist learners in excelling academically. Ownership of motor vehicle was regarded a luxury that was out of reach to most families.

Most parents had attended primary school with a good number progressing to secondary school. Despite this, the learners were not motivated by their parents' education level to pursue their endeavors or even surpass what the parents could achieve. Still the parents had some form of technical skill to earn a living. Learners acknowledged that school drop out in the region was very common but still could identify with peers in colleges.

Recommendations for Practice

From the scrutiny of the study results, the following recommendations can be considered:

1. The county government should support learners where it can to cater for resources that parents are not able to provide to aid learners in excelling in their school work.
2. The government through the principals should identify most vulnerable learners and provide financial aid beyond tuition fees and provide appropriate support to enable learners to complete their school programs.
3. The schools and education stakeholders in the area to encourage parents to engage in productive activities however small.

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