

**INFLUENCE OF INCOME GENERATING ACTIVITIES ON
TEACHING AND LEARNNG ENVIRONMENT IN PUBLIC
SECONDARY SCHOOLS IN BUNCOMA SOUTH DISTRICT-KENYA**

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DECLARATION

This research project report is my original work and has never been presented for any award of degree in any other university.

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DEDICATION

This research work is dedicated to my parents Fredrick Nyonje and Teresia Nandia for the support and love they have given me in life to grow and reach even this level of academic study.

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TABLE OF CONTENT

Title	Page
DECLARATION	(0)
DEDICATION	(")
ACKNOWLEDGEMENT	(»')
TABLE OF CONTENT	(iv)
LIST OF FIGURES"	(vii)
LIST OF TABLES	(viii)
ABBREVIATIONS AND ACRONYM	(xii)
ABSTRACT	(xiii)

CHAPTER ONE

INTRODUCTION.....	1
1.0 Background of the study.....»	
1.2 Statement of the Problem.....	3
1.3 Purpose of the study.....	4
1.4 Objectives of the study.....	5
1.5 Research questions.....^	
1.6 Significance of the study.....^	
1.7 De - limitations of the study.....	6
1.8 Limitations of the study.....	7
1.9 Basic assumptions of the study.....	7
1.10 Definitions of significant terms.....	7
1.11 Organization of the study.....	8

CHAPTER TWO

2.0	LITERATURE REVIEW	
2.1	Introduction	
2.2	Influence of IGA on teachers working conditions	
2.3	Influence of IGA on Students learning process	
2.4	Influence of IGA on curriculum improvement and implementation	
2.5	Influence of IGA on support systems in schools	
2.6	Theoretical frame work	
2.7	Conceptual frame work	

CHAPTER THREE

3.0	RESEARCH METHODOLOGY.....	17
3.1	Introduction.....	17
		17
3.2	Research design	
3.3	Target population	
3.4	Sampling procedure and sample size.....	18
3.4.1	Sample size.....	18
3.4.2	Sampling procedures.....	18
3.5	Data collection instruments	19
3.5.1	Pilot testing of the instruments	19
3.5.2	Validity of instruments.....	19
3.5.3	Reliability of instruments	90
3.6	Data collection procedure	90
3.7	Data analysis techniques	90

CHAPTER FOUR

4.0	DATA ANALYSIS, PRESENTATION INTERPRITATION AND DISCUSSIONS.....	21
4.1	Introduction.....	21
4.2	Study response rate.....	21
4.3	Demographic characteristics.....	22
4.4	Influence of adoption of IGA on teacher working conditions.....	25
4.5	Influence of adoption of IGA on students learning factors.....	38
4.6	Influence of adoption of IGA on curriculum improvement.....	46
4.7	Influence of adoption of IGA on support systems.....	60

CHAPTER FIVE

5.0	SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS.....	68
5.1	Introduction.....	68
5.2	Summary of findings.....	68
5.3	Conclusions.....	70
5.4	Recommendations.....	70
5.5	Suggestion for further study	
5.6	Contribution to the body of knowledge.....	71
	REFERENCES.....	73
	APPENDICES.....	79
	Appendix 1 Letter of transmittal.....	79
	Appendix 2 Headmasters Questionnaires	
	Appendix 3 Bursars Questionnaires.....	98
	Appendix 4 Heads of departments Questionnaire.....	77

LIST OF FIGURES

Fig 1 .Influence of income generating activities on school teaching
and learning improvement

LIST OF TABLES

Table 4.1 .Questionnaire response.....	21
Table 4.2.Type of schools.....	22
Table 4.3. Gender of the heads of departments.....	23
Table 4.4.Teaching experience of departments.....	23
Table 4.5. Period as heads of departments.....	24
Table4.6. Influence ofteacher working guide on adoption ofIGA.....	25
Table 4.7.Chi-square test of dependence between teacher working guides on adoption ofIGA.....	26
Table 4.8.Amount of money from IGA used in purchasing the guide.....	27
Table 4.9. Relationship between adoption of IGA and teachers receiving meals.....	28
Table 4.10.Chi-square testing the relationship between IGA and teachers receiving meals in school.....	29
Table 4.11.Amount of money from IGA spent on teachers meal.....	30
Table 4.12.Relationship between adoption of IGA and teachers housing facilities.....	31
Table 4.13.Chi-square testing the relationship between adoption of IGA and teachers housing facilities.....	32
Table 4.14.Amount from IGA proceedings spent on maintenance ofthe housing facilities.....	33
Table 4.15.Relationship between adoption of IGA and teachers providing extra tuition.....	34
Table 4.16.Chi-square testing the relationship between adoption of IGA and provision ofextra tuition.....	35

Table 4.17.Amount of money from IGA proceeds used in facilitating extra tuition	36
Table 4.18.Amount of money from IGA used in furnishing staffroom.....	37
Table 4.19.Relationship between adoption of IGA and schools having a school van bus.....	38
Table 4.20.Chi-square testing the relationship between adoption of IGA and school having a school bus/van.....	39
Table 4.21 .IGA'S proceeds used in buying/maintenance of the bus.....	40
Table 4.22.Influence of provision of meals and adoption of IGA.....	41
Table 4.23.Chi-square testing the influence of having IGA and schools provision of meals.....	42
Table 4.24.IGA'S proceeds used in purchasing of meals for students.....	43
Table 4.25.Influence of IGA on schools providing leisure time and sports to students.....	44
Table 4.26.Chi-square test investigating the relationship between provision of leisure and IGA.....	45
Table 4.27.IGA'S proceeds spend in facilitating leisure and sports for student.....	45
Table 4.28.Influence of adoption of IGA on availability of Test-books.....	46

Table 4.29. Chi-square test of dependence between availability of enough text books and adoption of IGA.....	47
Table 4.30. IGA'S proceeds spent on textbooks for departments.....	48
Table 4.31 .Relationship between having enough teaching aids and materials in your department	49
Table 4.32. Chi-square testing the relationship between adequate of teaching materials/aids and adoption of IGA.....	50
Table 4.33. IGA'S proceed spent on teaching aids and materials.....	51
Table 4.34. Influence of IGA on having adequate classrooms.....	52
Table 4.35. Chi-square testing the significance of the relationship between availability of classrooms and IGA adoption.....	53
Table 4.36. Amounts from IGA used in building classrooms.....	54
Table 4.37. Relationship between departments taking students for trips and adoption of IGA.....	55
Table 4.38. Chi-square testing the significance of relationship between departments taking students for trips and adoption of IGA.....	56
Table 4.39. Amount of IGA that is used in facilitating students academic trips.....	57
Table 4.40. Relationship between adoption of IGA and departments taking teachers for workshops.....	58
Table 4.41 .Chi-square testing the significance of the relationship between IGA and departments taking teachers for workshops.....	59
Table 4.42. Amounts from the IGA used in facilitating teachers workshops.....	60
Table 4.43 Relationship between adoption of IGA and guidance and counseling.....	61

Table 4.44 Amounts from IGA used in guidance and counseling.....	61
Table 4.45 Relationship between adoption of IGA and presence of library and laboratory facilities.....	62
Table 4.46 Chi -square testing the significance of the relationship between adoption of IGA and presence of liability and laboratory facilities.....	63
Table 4.47. Influence of IGA on teachers working conditions according to the HODs.....	64
Table 4.48 Influence of IGA on students learning process according the HOs.....	65
Table 4.49 Influence of IGA on curriculum development process according to the HODs.....	66
Table 4.50 Influence of IGA on Improved support system according to HODs.....	67
Table 5.1 Contribution to the body of knowledge.....	71

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS-Acquired Immune Deficiency Syndrome

B.O.G -Board of Governors

F.S.E -Free secondary schools

F.S.S -Income generating activities

HIV-Human Immunodeficiency Virus

I.GA -Income Generating projects

ICT-Information Communication and Technology

IGP-Income Generating Projects

IPAR -Institute of Policy Analysis and Research

MOES&T -Ministry of Education ,Science and Technology

ABSTRACT

Although the government has tried to intervene and support financing of Public Secondary School in the country through Free Secondary Education Program, the problem of financing still exist in our schools. Due to this issue Public Secondary Schools came up with alternative ways of supporting their institutions financially apart from relying on government donations only. One of the most popular mechanism of financing schools undertaken for this purpose was introduction of Income Generating Activities(IGA). Different projects were started in many schools in the country to create some money for the schools operations. This research study sought to identify the influences produced by income generating activities on teaching and learning environment in public secondary schools in Bungoma South District. The study also has an aim of establishing other unexploited IGA advantages that can be acquired by all schools in the Country undertaking these project. The study addressed the following objectives to investigate the extend to which IGA influence teachers working conditions, to determine the level at which IGA influence students learning process, to examine how IGA influence curriculum implementation and to investigate the extend to which IGA influence support system in Secondary schools. The research design that was employed for this study was descriptive survey. It involved collection of data by administering questionnaires to a sample of individuals. The questionnaires were given to ten Head teachers, ten Bursars and one hundred and forty two heads of departments who form up in total a sample size of one hundred and sixty two. After data collection the responses were organized, coded and entered into the computer for analysis using descriptive statistics. The analysis was give out basing on percentages, mean, mode, median, frequency and standard deviations. From the research findings it was evident that factors relating to adoptions of IGA activities in schools are categorized in three broad categories namely: Teacher Working Conditions, Student Learning Factors and Improvement in Curriculum. Further studies were recommended for future researchers on the topic so as to compare their results with the ones of this report.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Literature gathered in developed countries does not touch much on the influence of income generating activities on improvement of teaching and learning environment. In Britain for instance most of the studies done tend to focus on the impact of teaching and learning environment on student academic achievement. A review conducted by Newcastle University's Center for Learning and Teaching among British school found that teaching and learning environment was very important. It was evident that a healthy teaching and learning environment cultivated a positive change in student behavior which results in academic excellence. Thus schools in Britain agreed to embrace change in the school environment that could result into this positive result. However, the study suggested that such change could be done as a design process (Higgins, Hall, Wall, Woolner and McCaughey, 2005).

As we approach the 21st century, American public education is rising to meet a new challenge — high expectations and achievement for *all* students in *every* school. States and school districts are raising academic standards and making efforts to align curriculum, assessments, teacher training, and instruction with these challenging standards. The U.S. Department of Education is supporting these efforts with programs and resources to help improve teaching and learning in schools across the nation. Data from the National Assessment of Educational Progress show that the academic performance of students in America's highest-poverty schools is often several grade levels behind that of students in low-poverty schools. In U.S.A low-performing schools, teachers sometimes have low expectations of students and feel that they can do little to improve student performance. Often the environment is not conducive to learning - teachers are burnt out, school safety is a problem, and students and the community are disengaged. Many low-performing schools are

located in impoverished communities where family distress, crime, and violence are prevalent. Limited financial, human, and program resources can leave these schools without the support they need to deliver high-quality instruction (Lethwood, 2010).

Several strategies have been suggested to mitigate the challenges encountered by schools in the United States. First and foremost, Helping schools gain control of the learning environment; Concentrating resources and efforts on providing students with challenging curriculum and high-quality instruction; providing services so that young children come to school ready to learn; Creating a professional development program aligned with the content of curriculum and focused on improving instruction and Helping schools implement comprehensive school reform programs (Lethwood, 2010)

In Asian schools Self-Sufficient Schools focus the entrepreneurial flair of their staff and students on maximizing the returns to the human and physical resources at their disposal - creating income to fund their education work, and providing a valuable learning experience for all (Kafka and Stephenson, 2006). Kafka and Stephenson focusing on schools in Asian countries and those in developed countries suggest that schools can draw a lot of benefits by investing in agricultural projects. The authors argue that a self-sufficient School is one that covers the costs of providing an education to its students from internally generated revenue rather than relying on external financing or user fees.

Secondary education in Kenya has been characterized by rapid expansion since independence, however, this phenomena has been accomplished by a decline in access to secondary school among children from disadvantage background The Report of the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (The Kamunge Report, 1988) focused on improving education financing, quality and relevance. This was at a time when the Government scheme for the provision of instructional materials through the National Textbook Scheme was inefficient and therefore adversely

affected the quality of teaching and learning. From the recommendations of the Working Party in 1988, the Government produced Sessional Paper No 6 on Education and Training for the Next Decade and beyond. This led to the policy of cost sharing between government, parents and communities (Republic of Kenya, 2005). Within this framework, the government pays expenses for general administration and planning of schools, inspection and curriculum development. Parents and communities on the other hand meet the capital costs and some recurrent costs including construction of schools, provision of physical infrastructure, teaching-learning resources, school uniforms, test and examination fees, remuneration for non-teaching staff, security, transport and tuition, among other indirect costs (UNESCO, 2004, KIPPRA, 2006).

1.2 **Statement of the problem**

Session paper number one of 2005 recognizes that the Government has, over the years, demonstrated its commitment to the development of education and training through sustained allocation of resources to the sector. However, despite the substantial allocation of resources and notable achievements attained, the sector still faces major challenges. Some of these challenges relate to access, equity, quality, relevance, efficiency in the management of educational resources, cost and financing of education, gender and regional disparities, and teacher quality and teacher utilization (Republic of Kenya, 2005). With the increasing enrolment at secondary schools, implies an increased financial burden to the government in terms of sustaining the teaching and learning environment among public schools (KIPPRA, 2006). This provides a rationale for public schools to design sustainable strategies within their means to generate funds that can enable them subsidize on what they receive from the government.

Identification of feasible and sustainable public secondary school financing options varies from one country to another, depending on the level of development and existing

financing system. Some of the financing options that may work for developing countries, Kenya included, are: reducing schooling costs, public (government and external) financing of physical infrastructure, introduction of targeted vouchers accessible by both private and public schools, household subsidies and provision of incentives (KIPPRA, 2006). Among the strategies mentioned it is clear that influencing schools to initiate income generating activities (IGA) that will enable appropriate funding for teaching and learning environment is not among them. This study attempted to establish the extent at which IGA can be used to influence school teaching and learning environment.

Provision of basic needs to the people who form up the teaching and learning environment has an impact on teaching and learning. The money generated from IGA's can be used for such a purpose in schools. IGAs also are very important in schools because they promote teaching of entrepreneurial subjects which are very important for creating self employment

A study by Omukoba, Simatwa and Ayodo (2011) on the contribution of income generating activities on financing secondary schools in Kenya recognized that there are some aspects of IGA in Kenya schools. However, the study did not give a clear picture on the extent to which those activities impacted on the secondary schools teaching and learning environment. This study seeks to establish the influence produced by income generating activities on schools teaching and learning environment improvement in secondary schools in Bungoma South District.

1.3 Purpose of the study

The purpose of this study was to investigate influence of income generating activities on schools teaching and learning environment in public secondary schools in Bungoma South District.

1.4 Research Objectives

The study was guided by the following research objectives:

1. To investigate the extent to which Income Generating Activity influence teachers working Conditions
2. To determine the level at which Income Generating Activity influence students learning Process.
3. To examine how Income Generating Activity influence curriculum implementation.
4. To investigate the extent to which Income Generating Activity influence support system in schools.

1.5.1 Research questions

The following research questions were answered in the study :

1. To what extent does Income Generating Activity influence teachers working conditions?
2. To what level does Income Generating Activity influence students learning process?
3. How does Income Generating Activity influence curriculum implementation?
4. To what extent does Income Generating Activity influence support systems in public secondary schools?

1.5.2 Research Hypotheses

The following hypotheses were tested in the study

- H₀ 1. There is no relationship between adoption of Income Generating Activity and teachers working conditions
- H₀ 2. There is no relationship between adoption of Income Generating Activity and students learning process.
- H₀ 3. There is no significant relationship between adoption of Income Generating Activity in schools and curriculum implementation.

1^4. There is no relation between adoption of Income Generating Activity in schools and support system in secondary school.

1.6 Significance of the study

After implementation of free secondary school policy, schools started engaging themselves in IGAs as one of the optional ways of funding themselves. It was hoped that the findings of this study will inform the government and schools on the influence of IGA on teachers working conditions, students learning process, curriculum implementations and support systems .It was hoped that the findings and recommendations of this study will enable the government create policy decisions that will support and stimulate IGAs in public secondary schools for self sustainment .It was also hoped that the study will gather vital information that will be useful in providing advisory services on how to use profits from IGA in improving academic environment. It was also hoped that the study will also be useful to various stakeholders involved in financing and improving public and private schools in Kenya and all over the world. It was hoped that the study will contribute immensely to the theory and development in teaching and learning environment in schools. It was also hoped that the findings and recommendations from the study will contribute much on promoting entrepreneurship and self employment in the country.

The findings will provide a debate and brainstorming in seminars and conferences.

1.7 Delimitations of the study

The study was delimited to public secondary Schools within Bungoma South District. The schools within the districts formed a section of public schools that are under the same government policy framework and those findings could easily be generalized to all public secondary schools in Kenya. The study was also delimited to the use of questionnaires and interview schedules. These two data collections methods were

suitable for this study since they are able to generate both quantitative and qualitative data that is required to have a clear understanding of the influence of IGA on school teaching and learning environment. The study was also delimited to the views opinion and insights of the school bursars, principals, deputies, and heads of departments in public schools in Bungoma South District. This is because the researcher believed that they are in a position to provide dependable information on income generating activities and how it influenced the school teaching and learning environment. Furthermore, the researcher believed that the individuals are key in decision making that involves day-to-day running of school.

1.8 Limitations of the study

This study was constrained by the reliability of data due to respondent's non responses of not giving correct answers .The study also was easily influenced by the dynamics of rural life including time limitations for respondents to dedicate for questionnaire administration as a result of farming activities for interviews conducted during the days .

1.9 Basic Assumptions of the study.

In conducting this study , it was assumed that the targeted respondent will be willing to respond to the questionnaires and will provide correct answers to the questions .The researcher assumed that all schools in Bungoma South District had at least implemented more than one income Generating Projects that form a basis of this study.

1.10 Definitions of Significant terms.

Free Secondary Education: Type of education which the government offers tuition payment freely to all students.

Income Generating Activities: Activities undertaken by schools for financial benefits

- Free secondary schools:*** This are schools undergoing the free secondary education Program
- Public secondary Schools:*** Post primary institutions that are run in partnership between the government and communities
- Board ofgovernors*** A committee of people selected in schools to observe and determine the schools' operation
- Curriculum*** The subject that are included in a course of study or taught in school.
- Teaching and learning environment:*** This is a surrounding where students are being taught and end up gaining knowledge.
- Support System*** A group of workers in school who perform other duties a part from teaching students

1.1 1 Organization of the Study

There are five Chapters in this documents .Chapter one gives an overview of the study , an outline of the background of the study , statement of the problem , purpose of the study , the stated objectives, the research questions , the significance of the study , basic assumptions of the study limitations and delimitations of the study , definition of significant terms as used in the study and organization of the study .Chapter two constitutes of literature review , theoretical and conceptual framework .Chapter three provides a detailed methodology used in the research .Chapter four presents data analysis , presentations, interpretation and discussions .In chapter five we have the summary of the findings, Conclusions and recommendations .Other aspects in the document are references and appendices.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented a review of related literature as guided by themes derived from the research objectives. The chapter focused on determining influence of IGA on teachers working conditions, students learning process, curriculum implementation and support systems in schools

2.2 Influence of Income Generating Activities (IGA) on teachers working conditions

Learning and teaching environment are made up of physical psychosocial and service delivery elements .Teachers working conditions affects their ability to provide quality education as many aspects of school life and educational policy go into teachers perceptions of the employment in many schools. Teachers face housing and transport obstacles ,which hinder them from getting to school on time and performing their job .Efficient use of school time is very important ,as we are told "The quality of a school and the quality of teaching of the individual teacher is higher in schools that are able and willing to make more efficient use of the available time of its teachers and its pupils (verwimp ,1999).

Introduction of IGA in secondary schools offers a solution to reduction of such problems (Odah Oyolo , 2010). More housing can be provided to teachers within the school compound to save on study time and traveling..

Teachers nutrition and health can also be catered for using IGA gains .The money can be used for buying teachers meals and offering them free treatment .By doing this the teachers health improves making them to concentrate on their school work.

By building more classes and employing more B.O.G teachers, the student population per class lowers down, making it easier for a teacher to perform his job .Availability of learning and teaching materials also influence the teachers experience as an educator to the

students. Teachers remuneration also matters very much .In many schools ,the **B.O.G** teachers are under paid and even given late remuneration which leads to them seeking for another better job .Effective teachers are highly committed and care about their students (Craig). Kraft & du Plessis,1998); their attitudes .

The quality of administrative support and leadership is another critical element in school process .both for students and teachers .At a more macro level, ensuring financial resources for education especially for recurrent budget is a necessity .Organizational support for teaching and learning takes many forms .including such measures as advocating for better conditions and professional development .respecting teachers autonomy and professionalism and developing inclusive decision -making process .Funds from IGAs can be used in sponsoring teachers for courses and workshops based on leadership and management to enable them be better school managers in future .

IGA has been taken as one of the best ways of financing our secondary schools in our country (District education officers office 1997).up to now , we aren't aware if the funds gained from IGA have brought any change on the above mentioned teachers conditions or not.

2.3 Influence of Income Generating Activities (IGA)on students learning process

Physical learning environments or the places in which formal learning occurs .range from relatively modern and well equipped buildings to open air gathering places .In this study I examined if IGA had any effort on improving the physical environment . The quality of school facilities seems to have an indirect effect on learning ,an effect that is hard to measure ' some authors argue the extant empirical evidence is inconclusive as to whether the condition of school buildings is related to higher students achievement after taking into account students background"(Fuller 1999.)Basing on the studies performed in India (Carron & Chan, 1996) and the one done in Latin America (Williams, D:2000), the quality of the

learning environment relates with pupils achievement.

By building more classes in a school, a change in class size managed by teachers can be realized. Many countries significantly expanded access to secondary education during the 1990s, but the building of new schools has often not kept pace with the increase in the student population. In these cases, schools have often had to expand class sizes, as well as the ratio of student - teacher ratio, to accommodate large numbers of new students. A UNICEF/UNF.SCO survey conducted in 1995 in 14 least developed countries found out that class sizes ranged from fewer than 30 students in rural and urban Bhutan, Madagascar and the Maldives, to 73 in rural Nepal and 118 in equatorial guinea (Postle Waithe , 1998) .Educators and researchers from diverse philosophical perspectives have debated the relationship between class size and academic achievement exists in our schools. By introducing IGA in secondary schools we expect quality performance from students because the student teacher ratio will reduce due to building classes.

The presence of adequate instructional materials and text - books , working conditions for students and teachers, and the ability of teachers to undertake certain instructional approaches improves more students learning environment such factors as on site availability of lavatories and a clean water supply , classroom maintenance , space and furniture availability all have an impact on the critical learning factor. Of time on task, when pupils have to leave school and walk significant distances for clean drinking water, for example they may not return to class (Miske &Dowd, 1998)

IGA activities in schools produces some effect on school management and administration by offering courses for teachers and school managers. Well managed schools and classrooms contribute to educational quality. Student's teachers and administration should agree upon school and classroom rules and policies, which should be clear and understandable, order, constructive discipline and reinforcement of positive behavior

communicate in seriousness of purpose to students (Craig , Kraft & Do Plessis, 1998).policies are needed on bullying , harassment , drug and tobacco use, and anti-discrimination with regard to disabilities, HIV/AIDS and pregnancy since adoption of IGA activities in schools the administration and policies ought to have improved up to this moment.

Students learning process was also improved in many secondary schools due to introduction of IGA profits that have been used for improving school service environment. Provision of health services and education contributes to learning , first by reducing absenteeism and inattention. Today , the potential of school-based health interventions in improving academic performance is becoming increasingly clear as problems of protein, energy, malnutrition, micronutrient deficiency disorders, helminthic infection and temporary hunger among children continue to plague developing countries : (Levinger, 1992) school - based programs that address other major health and nutrition problems that can decrease cognitive functioning including deficiencies of iron , iodine and Vitamin A have also been shown to be effective. Guidance and counseling services, extra curricular activities and the provision of school snacks are other examples of service provision that contribute to quality school environments for students. Security services in schools was improved by employing more security men to maintain a better studying environment.

2.4 influence of Income Generating Activities (IGA) on Curriculum Implementation

Many schools lack trained teachers to teach some subjects, especially the technical subjects. By schools gaining extra funds from IGA , teachers of different subjects will be employed. This will improve the curriculum very much because different knowledge will be delivered to students. More learning materials and equipments will be stocked as the necessary materials for study. The IGA money will also be used for sponsoring students and teachers for workshops and seminars related to different subjects for example guidance and counseling (HIV/AIDS & drug taking) health , nutrition .peace and gender equity.

Extra availability of teaching and learning materials will make the student centered type of learning effective in schools. Learners will have a greater opportunity of investing and practicing new ideas in their subjects. Modern technology such as ICT will be used for teaching and learning of subjects in schools.

2.5 Influence of Income Generating Activities (IGA) on support systems in schools

Schools can gain much from IGA by getting funds to pay non-teaching staff employees for example cooks grounds men, watchmen and others. The money also can be used for training the non-teaching staff in their jobs by taking them to workshops and seminars. Working equipments needed by the non-teaching staff can be bought from this money to facilitate their job. Also we can improve the workers health and nutrition can be catered for using this capital. Schools can arrange for free treatment for their workers and even provide them with a good diet.

IGA funds can also be used for facilitating library and laboratory services. We can buy more text books for our libraries and employ even a librarian to maintain the library, the same can be done for a laboratory by buying more equipments and employing a technician to offer the services.

Motivation to workers can also be obtained from IGA money. Workers can be taken for enjoyment trips or be given some motivation to encourage them in their performance. This will make schools services to improve because the workers will be determined to do their jobs.

2.6 Theoretical Framework

This study was guided by the basic needs theory. According to Abraham Maslow (1943), there are certain minimum requirements that are essential to decent standard of living. These are known as Physiological needs. They are Primary needs and have to be catered for before other needs such as security, sense of belonging and

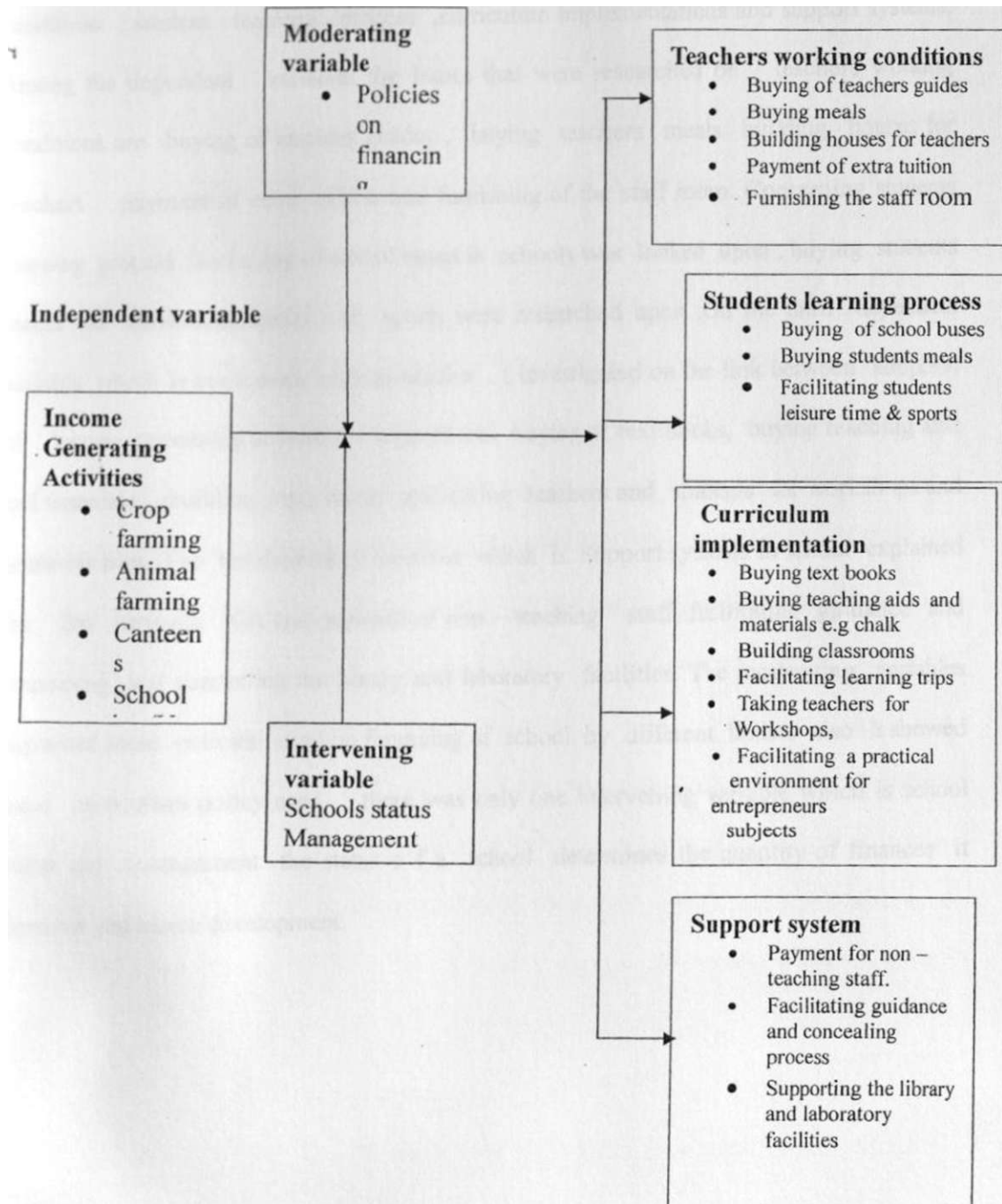
affection .love, esteem and finally self actualization are pursued.

This Study attempted to find out the influence of IGAs on teaching and learning environment in Public Secondary schools. The presence of IGAs in schools creates availability of basic needs to the entire school .The profits gained from these projects are used for purchasing of food , clothing , shelter and improving health standards for teachers, students and even the non- teaching staff .Based on this theory the presence of this basic needs which are essential affects the performance and living standards of people .

By providing the basic needs to teachers students and non- teaching staff , the other needs present in the society can be catered for easily .This influences the teaching and learning environment because it affects the life of people .Normally, performance and outcome from a group people who are not undergoing any basic need stress is improved.

2.7 Conceptual Framework

Dependent Variables



The Study was structured in terms of independent , dependent , moderating and intervening variables Income generating activities was the independent variable since it creates finances for funding of the other dependent variables which are teachers working conditions , student learning process .curriculum implementations and support systems. Among the dependent variables the issues that were researched on teachers working conditions are buying of teachers guides , buying teachers meals building houses for teachers payment of extra tuition and furnishing of the staff room. Concerning students learning process the buying of school buses in schools was looked upon , buying students meals and facilitating leisure and sports were researched upon .On the third dependent variable which is curriculum implementation , I investigated on the link between adoption of income generating activities in schools and buying of text books, buying teaching aids and materials , ;building class rooms and taking teachers and students for workshops and academic trips .The last dependent variables which is Support systems in school explained the link between IGA and payment of non - teaching staff, facilitating guidance and counseling and supporting the library and laboratory facilities. The moderating variables explained some policies used on financing of school by different bodies also it showed some curriculum policy used there was only one intervening variable which is school status and management the status of a school determines the quantity of finances it receives and hence development.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research procedure in terms of the research design, target population, sampling procedure and sample size, data collection instruments, pilot testing of the instruments, validity of instruments, reliability of instruments, data collection procedures, data analysis techniques, ethical consideration and definition of the variables.

3.2 Research Design

A research design is the structure of the research that holds all the elements in a research proposal (Kombo and Tromp, 2006). The authors define research design as the scheme outline, or plan that is used to generate answers to research problems. Research design therefore constitutes the blueprint for the collection, measurement and analysis of data.

The research design that was employed in this study was descriptive survey. According to Kerlinger (1969) descriptive studies involve measurement, classification, analysis and interpretation of data. Descriptive survey is a method of collecting information by way of interview or administering questionnaires to a sample of individuals. Descriptive survey was adapted for this study because it provided qualitative and quantitative description of IGA existing in secondary schools in Bungoma and provides reasons leading to their adoption. The design assisted in gathering data regarding in-depth knowledge and understanding of factors influencing adoption of IGA as a sustainable strategy of financing public schools (Babie 2001).

3.3 Target population

The target population for the study was 30 public secondary schools found in Bungoma South (District Education, Bungoma South 2011). According to Bungoma South District Education office, 3 of the schools are Boys Schools, 5 girls' school and 22 are mixed

schools. In all the 30 schools 7 heads of departments including games masters/mistress were targeted to give a total of 210 respondents. In additions 30 school bursars and 30 school principals were also sought out to give some infomiation. In total there were 270 respondents that were targeted.

3.4 Sampling procedure and Sample size

This section discusses sample size and sampling procedure

3.4.1 Sample size

According to Krejce and Morgan (1970) tables, a suitable sample size of 280 which is slightly above 270 target population for this study is 162

3.4.2 Sampling Procedures

All the 5 girls' schools and 3 boys' schools were purposefully selected to participate in the study. This implied that all the 7 heads of department were purposefully sought to give a total of 56 respondents. Thirty percent (30%) of the principals of secondary schools were selected proportionately to give 10 Respondents. This is slightly higher than 10% suggested by Mugenda and Mugenda (1999). The researcher chose to pick on a higher percent to ensure representativeness of all status. Out of 3 boys schools, 1 principal was selected ($3/30 \times 10=1$). Out of 5 girls schools 2 principals were selected ($5/30 \times 10$). The remaining 7 principals were randomly selected from the 22 mixed schools within Bungoma South district. The same format of selecting the secondary principals was applied to select the school bursars. This means 10 bursars were selected, 1 from boys school, 2 from girls schools and 7 from mixed schools. In total the 56 heads of department in boys and girls schools add 10 principals and 10 bursars gives a total of 76 respondents. From 162 sample size, there is balance of 86 respondents that was selected among 22 mixed schools. Since there are only 7 heads of department that were sought in each of the 22 mixed schools it implied that 86 respondents were sampled from 12 schools ($86/7=12.2$). The 12 schools were sampled out randomly.

3.5 Data Collection Instruments

Data was collected using two structured questionnaires that were developed by the researcher; and used to gather data from the entire respondents. The head teacher's questionnaire was tailored to address policy issues governing IGA in schools while the questionnaires for the rest of respondents were similar in structure.

3.5.1 Pilot Testing of the Instruments

To standardize the instruments before they were used for data collection, a minor study called a pilot study was conducted. The pilot study was done in 5 secondary schools in neighbouring Bungoma west District. The main intention of the pilot study was to identify problems that respondents might encounter and to determine if the items in the research instrument would yield the required data for the main study. Therefore, the items in the instruments were revised depending on the result of pilot study.

3.5.2 Validity of the Instruments

According to Mugenda and Mugenda (1999), validity of an instrument is a measure of the degree to which the results obtained using the instrument represents the actual phenomenon under study. Peers and research measurement experts from University of Nairobi were used to validate each instrument. The instruments were given to two experts and two peers in the department of project planning and management for validation. The strategy was to ensure that the items in each questionnaire captured the intended information accurately according to the objectives of the study.

3.5.3 Reliability of the Instruments

Mbwesa (2006) defines reliability as the degree to which a measure supplies consistent result, In order to ensure reliability of the instruments , the split -half technique which involves administering only one testing session and taking the results obtained from one half of the scale items and check them against the other half of items to determine their correlation coefficient was used.

The study used Spearman Brown prophecy formula to calculate the reliability coefficient .The formula for this test was as follows:

$$\text{Reliability on scores on total test} = \frac{2 \times \text{reliability for } 1/2 \text{ test}}{1 + \text{reliability for } Vi \text{ tests}}$$

Mugenda and Mugenda (1999) suggested a correlation coefficient of 0.6 for such studies indicate high reliability.

3.6 Data collection Procedures

A letter was obtained by the researcher from the Graduate School of Nairobi University requesting for a permit from the Ministry of Higher Education and Science through the National Council of Science and Technology of Kenya to Carry out the research .On acquisition of the permit ,the researcher proceeded to the study area for appointments with school administrators in preparation for data collection which was followed accordingly .In order to carry out the research within the required time frame the researcher employed the services of two competent research assistants .

3.7 Data Analysis Techniques

After data collection ,the responses were organized ,coded and entered into the compute for analysis using descriptive statistics .The descriptive statistics included percentages .mean .mode .median and standard deviations

CHAPTER FOUR

4.0 DATA ANALYSIS PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the data as captured from the analysis of the research objectives. The study had four objectives namely to establish the influence of : teacher working conditions on income generating activities, curriculum improvement on income generating activities, support systems on income generating activities and to establish influence of the student learning process on the adoption of IGA.

4.2 Study response rate

In examining the influence of determinants of adoption of IGA in the schools, the study targeted the views of head teachers, the heads of departments and the bursar. Table 4.1 below shows the response rate of the study.

Table 4.1: Questionnaire response rate

Respondents	Targeted	Obtained	Response rate
Head teachers	8	8	100
Bursar	8	8	100
Heads of departments	90	86	95.56
Total	116	102	87.93

The study targeted 8 head teachers, 8 bursars and 90 heads of departments. The study got the views of all the head teachers and bursars but did not manage to get the views of all the heads of departments as only 86 (95.56%) heads of department responded to the study. In total the study got the views of 102 (87.93%) respondents out of the 116 respondents. This implied that the study had a response rate of 87.93%. This is in line with the views of Cooper and

Scindler (2006) has proposed that a study response rate of above 75% is adequate for a study of a social scientific nature to continue.

4J Demographic characteristics of types of schools

This section presents the demographic characteristics of the respondents. The researcher began by examining the type of schools that the respondents were sampled from to know whether the study was representative of the different type schools. Table 4.2 shows the distribution of type of schools.

Table 4.2: Type of schools

Type of schools	frequency	percent
Boys boarding	1	12.5
Girls boarding	1	12.5
Girls day	1	12.5
mixed day	3	37.5
Mixed day/boarding	2	25
Total	8	100

From table 4.2, 1(12.5%) schools was boys boarding school, 1(12.5%) schools was girls boarding, 1(12.5%) schools was girls day, 3(37.5%) schools were mixed day and finally 2(25%) schools were mixed day/boarding schools according to the views of the head teachers and bursars. This results show that that the study was representative of the views of different type of schools and was not biased.

The study investigated the gender of the heads of departments and the findings are as per table 4.3. knowing the gender of the heads of departments was important to know whether the study was representative of both male and female respondents or it was biased towards one gender.

Table 4.3: Gender of the heads of departments

Gender	Freq.	Percent
Male	48	55.81 ~
Female	38	44.19
Total	Itot	Tootof

From table 4.3, 48(55.81%) of the heads of departments were male and 38(44.19%) were female, this shows that the study was not gender biased as there was a more or less equal proportions of male and female.

The study also wanted to know the teaching experience of the heads of the departments; the findings are as shown from table 4.4. Knowing the size of experience is important in establishing the period in which the heads of departments had been staff in the school to observe and reliably report on the determinants to adoption of IGA in the schools.

Table 4.4: Teaching experience of the heads of departments

Teaching experience	Freq.	Percent
Less than one year	3	3.49
1-5 years	15	17.44
6-10 years	21	24.42
11 and above	47	54.65
Tbtal	86	100.00

From figure 4.4, 3(3.49%) heads of departments had a teaching experience of less than one year, 15(17.44%) were having a teaching experience of one to five years, 21(24.42%) had a teaching experience of six to ten years and 47(54.65%) were having a teaching experience of

eleven years and above. These results shows that most of the heads of departments had a teaching experience of eleven years and above, which adds up to 47(54.65%). Since more than 50% of the head teachers had been in the profession for more than 10 years then their responses can be judged as reliable.

Additionally the study wanted to know the period the respondents have been head of department, the findings are as shown from table 4.5. Knowing the period in which the respondents had been heads of departments was important to know the period in which the respondents had been in leadership to so as to know and give reliable results on teacher working, curriculum improvement, support systems and student issues.

Table 4.5: period as heads of departments

Period as head of department	Freq.	Percent
Less than one year	17	19.77
1 -5 years	37	43.02
6-10 years	20	23.26
11 and above	11	12.79
Don't know	1	1.16
Total	86	100.00

From table 4.5, 17(19.77%) heads of department had headed their departments for a period of less than one year; 37(43.02%) had been heads of department for a period of between one to five years; 20(23.26%) had been heads of department for six to ten years; 11(12.79%) have been heads of department for over ten years and lastly 1(1.16%) did not know for how long he served as a head of department. From these results most of the heads of departments had been heads of department long enough to give reliable results on teacher working, curriculum improvement, support systems and student issues.

4.4 Influence of adoption of Income generating activity on teacher working conditions

The first objective of the study examined how teachers' working conditions influence income-generating activities. The study began by inquiring whether the HODs had enough teachers' guides in their departments to know its relationship with adoption of IGA. The table below shows the cross tabulation of the results.

Table 4.6: Influence of teacher working guide on adoption of IGA

Having enough teacher guides in the department	Not having IGA		Having IGA		Total	
	Freq.	percent	Freq.	percent	Freq.	percent
Yes	7	25.93	20	74.07	27	100
No	29	49.15	30	50.85	59	100
Total	36	41.86	50	58.14	86	100

From table 4.6, of the 27 heads of departments who agreed to having enough teacher guides in the department influences, 7 (25.93%) did not have income generating activities in their schools and 20 (74.07%) heads of departments had income generating activities in their schools. Among the 59 who did not agree to having enough teacher guides in the department, 29 (49.15%) belonged to schools that did not have income generating activities in their schools and the other 30 (50.85%) heads of departments had income generating activities in their school. These results demonstrate that having enough teacher guides in the departments was associated with adoption of IGA in the schools. The study did a chi - square test to test the dependence and presented the findings as shown in table 4.2.

Table 4.7: Chi - square test of dependence between teacher working guide on adoption of IGA

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.106 ^a	1	.043
Continuity Correction ^b	3.207	1	.073
Likelihood Ratio	4.254	1	.039
Fisher's Exact Test			
Linear-by-Linear Association	4.058	1	.044
N of Valid Cases	86		

From table 4.7 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.073, which is greater than 0.05. It can be inferred that income-generating activities and having teacher-working guides are dependent.

Table 4.8 shows the heads of departments response concerning the amount of money from IGA used in purchasing the guides.

Table 4.8: Amount of money from IGA used in purchasing the guides

Amount of money from IGA used in purchasing the guides	Heads of department		Bursar		headmasters	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Ksh.5000 and below	29	58.00		62.50		87.50
Ksh.5001-10,000	2	4.00		37.50		12.50
Ksh.10,001-15000	2	4.00				
Ksh. 15,001-20,000	1	2.00				
Ksh.20,001 and above	4	8.00				
Don't Know	12	24.00				
Total	50	100.00		100.00		100.00

From table 4.8 above, 29 (58.00%) heads of departments said that the amount of money from IGA used in purchasing the guides was Ksh.5000 and below. 2 (4.00%) heads of department said that the amount of money from IGA used in purchasing the guides ranged between Ksh.5001 to 10,000. 2 (4.00%) other heads of departments said that the amount of money from IGA used in purchasing the guides ranged between Ksh.10, 001 to 15,000. 1 (2.00%) head of department alleged that the amount of money from IGA used in purchasing the guides was between Ksh. 15,001 to 20,000. 4 (8.00%) other heads of departments said that the amount of money from IGA used in purchasing the guides was from Ksh.20,001 and above. For the head teachers, 5 (62.5%) heads of departments and 7 (87.5%) head teachers said that their schools used less than 5000 shillings in purchasing teacher study guides while 3 (37.5%) bursars and 1 (12.5%) head teachers said that their schools used between 5000 and 10000 shillings from the IGA to purchase teacher working guides. This results show that the schools used very little sums in purchasing the teacher working guides.

The **researcher further** sought to investigate the relationship between of teachers receiving meals in school and adoption of IGA. Table 4.9 below shows the cross tabulation of the relationship **between** teachers receiving meals and adoption of IGA.

Table 4.9: Relationship between adoption of IGA and teachers receiving meals

Whether teachers receive meals in school	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq	Percent	Freq	Percent.
Yes	31	38.27	50	61.73	81	100
No	5	100	0	0	5	100
Total	36	41.86	50	61.73	86	100

From table 4.9 above, 31 (38.27%) heads of department of the 81 who agreed that teachers receive meals in school did not have income generating activities in their respective schools while 50 (61.73%) heads of departments came from schools that had income generating activities. All the 5 (100%) heads of departments who said no did receive meals in schools also did not have income generating activities in their schools. This results show that having IGA in the schools was associated with teachers receiving meals while in school. The researcher sought to know whether this relationship was statistically significant or it was just out of chance. Table 4.10 presented a chi - square test of the relationship between income generating activities and teachers receiving meals in school.

Table 4.10: Chi square testing the relationship between income generating activities and teachers receiving meals in school

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.982 ^a	2	.018
Likelihood Ratio	10.113	2	.006
Linear-by-Linear Association	.012	1	.913
N of Valid Cases	86		

From table 4.10 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.018, which is less than 0.05. It was therefore inferred that schools providing meals to teachers indeed was dependent on them having an income-generating activities in their school. The study therefore rejected the null hypothesis and concluded that there is a relationship through dependence between income generating activities and whether teachers receive meals.

The study went further and explored the amounts from IGA spent on teachers' meals by the heads of departments is illustrated in table 4.11.

Table 4.11: Amount of money from IGA spent on teachers' meals

Amount of money from IGA spent on teachers' meals	Heads of department		Bursars		Headmasters	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Ksh.5000 and below	22	44.00	3	37.50	2	25.00
Ksh.5001-10,000	5	10.00	.		1	12.50
Ksh.10,001-15000	5	10.00	5	62.50	5	62.50
Ksh. 15,001-20,000	1	2.00				
Ksh.20,001 and above	9	18.00				
Don't Know	8	16.00				
Total	50	100.00	8	100.00	8	100.00

From table 4.11 above, 22 (44%) heads of department, 3 (37.5%) bursars and 2 (25%) headmasters thought that the amount of money from IGA spent on teachers' meals was K.sh.5, 000 and below. A total of 5 (10%) heads of departments and 1 (12.5%) headmaster said that the amount of money from IGA spent on teachers' meals ranged between Ksh.5001 to 10,000. Another 5 (10%) heads of departments, 5 (62.5%) bursars and 5 (62.5%) headmasters said that the amount of money from IGA that was spent on teachers' meals ranged between Ksh.10, 001 and 15, 000. 1 (2%) head of department thought that the amount of money from IGA spent on teachers' meals ranged between Ksh.15, 001 and 20,000. 9 (18%) heads of departments and 5 (62.5%) headmasters said that the amount of money from IGA spent on teachers' meals was Ksh.20, 001 and above. 8 (16%) other heads of departments had no idea of the amount from IGA that was spent on teachers' meals. From this findings, it is evident that the schools used very little amounts from IGA on the meals of teachers.

The researcher examined the relationship between adoption of IGA and housing facilities in schools using cross tabulation analysis. Table 4.12 below shows the results of cross tabulation for the relationship.

Table 4.12: Relationship between adoption of IGA and whether schools have housing facilities for teachers

Whether schools have housing facilities for teachers	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Yes	2	6.67	28	93.33	30	100
No	34	60.71	22	39.29	56	100
Total	36	41.86	50	89.29	86	100

From table 4.12, out of the 30 respondents whose schools had housing facilities for the teachers, 2 (6.67%) heads of departments came from schools that did not have income generating activities in their schools while the remaining 28 (93.33%) heads of departments had income generating facilities in their schools. Of the 56 heads of departments who disagreed that schools have housing facilities for teachers, 34 (60.71%) did not have income generating activities in their schools and the remaining 22 (39.29%) heads of departments had income generating activities in their schools. On average, more heads of departments whose schools did not have income generating activities were of the opinion that schools do not have housing facilities for teachers and on the other hand, more of the heads of departments whose schools had income generating activities agreed that schools have housing facilities for teachers. The researcher confirmed this relationship using a chi - square test of dependence between housing and IGA adoption in schools and presented the findings in table 4.13.

Table 4.13:Chi square testing the relationship between adoption of IGA and teachers

housing facilities

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.447 ^s	1	.000
Continuity Correction ¹⁵	21.279	1	.000
Likelihood Ratio	27.195	1	.000
Fisher's Exact Test			
Linear-by-Linear	23.174	1	.000
Association			
N of Valid Cases	86		

From table 4.13 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.000 which is less than 0.05. It was therefore incidental teachers housing facilitating and adoption of IGA were dependent. The study therefore accepted the alternative hypothesis that there is a relationship through dependence between income generating activities and availability of housing facilities for teachers in schools.

The study explored the amount of money from IGA that is spent on maintenance of housing facilities by the heads of departments and presented the findings as illustrated in table 4.14.

Table 4.14: Amount from IGA proceedings spent on maintenance of the housing facilities

Amount from IGA proceedings spent on maintenance of the housing facilities	Heads of Departments		Bursars		Headmasters	
	Freq	Percent	Freq.	Percent	Freq.	Percent
Ksh.5000 and below	25	50.00				
Ksh.5001-10,000	1	2.00		100.00		
Ksh. 10,001-15000	2	4.00			8	100.00
Ksh. 15,001-20,000	2	4.00				
Ksh.20,001 and above	3	6.00				
Don't Know	17	34.00				
Total	50	100.00	8	100.00	8	100.00

From table 4.14 above, 25 (50%) heads of department thought that the amount of money from IGA spent on maintenance of teachers' housing facilities was Ksh.5, 000 and below; 1 (2%) head of department and 8 (100%) bursars said that the amount of money from IGA spent on the maintenance of teachers' housing facilities ranged between Ksh.5001 to 10,000. Another 2 (4%) heads of departments and 8 (100%) headmasters thought that the amount of money from IGA spent on maintaining teachers' housing facilities were of the opinion that the amount of money from IGA spent on maintenance of teachers' housing facilities ranged between Ksh. 10, 001 and 15, 000. 2 (4%) other heads of departments ranged between Ksh. 15, 001 and 20,000. 3 (6%) heads of departments said that the amount of money from IGA spent on maintenance of teachers' houses was Ksh.20, 001 and above. 17 (34%) heads of departments had no idea of the amount from IGA that was spent on the maintenance of teachers' housing facilities. This results show that the amounts that the sums of money from

IGA that were used to maintain teachers housing were largely low. Ranging in the values less than 5000 shillings.

The researcher further sought to investigate the relationship between of teachers providing extra tuition **programs** in school and adoption of IGA. Table 4.15 below shows the cross tabulation of the relationship between teachers receiving meals and adoption of **IGA**.

Table 4.15 Relationship between adoption of IGA and teachers providing extra tuition

Availability of extra tuition programs	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Yes	22	31.43	48	68.57	70	100
No	14	87.5	2	12.5	16	100
Total	36	41.86	50	58.14	86	100

From table 4.15, out of the 70 respondents whose schools had extra tuition programs, 22 (31.43%) heads of departments did not have income generating activities in their schools while 48 (68.57%) had income generating facilities in their schools. Of the 16 (100%) heads of departments who disagreed that schools have extra tuition programs, 14 (87.5%) did not have income generating activities in their schools and the remaining while 2 (12.5%) heads of departments had income generating activities in their schools. In summary schools having IGA was related with schools providing extra tuition to learners. The study sought to confirm this test using a chi - square test of dependence between adoption of IGA and provision of extra tuition facilities. Table 4.16 shows a Chi-Square test.

Table 4.16: Chi square testing the relationship between adoption of IGA and provision of extra tuition

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.824 ^s		.000
Continuity Correction ^b	14.599		.000
Likelihood Ratio	17.727		.000
Fisher's Exact Test			
Linear-by-Linear Association	16.628		.000
N of Valid Cases	86		

From table 4.16 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.000, which is less than 0.05. It was therefore incidental that income-generating activities were dependent. The study therefore accepted the alternative hypothesis that there is a relationship through dependence between income generating activities and availability of extra tuition programs in schools.

The study explored the amount of money from IGA that spent on provision of extra tuition programs and presented the findings as illustrated in table 4.17.



Table 4.17: Amount of money from IGA proceeds used in facilitating extra tuition

Amount of money from IGA proceeds used in facilitating extra tuition	Heads of Departments		Bursars		Headmasters	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Ksh.5000 and below	23	46.00		12.50	1	12.50
Ksh.5001-10,000	4	8.00			2	25.00
Ksh. 10,001-15000	3	6.00				
Ksh. 15,001-20,000	2	4.00				
Ksh.20,001 and above	7	14.00		87.50		62.50
Don't Know	11	22.00				
Total	50	100.00		100.00		100.00

From table 4.17, 23 (46.00%) heads of departments, 1 (12.5%) bursars and 1 (12.5%) headmaster said that the amount of money from IGA used in facilitating extra tuition was Ksh.5000 and below, another 4 (8.00%) heads of departments and 2 (25%) headmasters said that the amount of money from IGA used in facilitating extra tuition ranged between Ksh.5001 to 10,000. A total of 3 (6.00%) heads of departments said that the amount of money from IGA used in facilitating extra tuition ranged between Ksh.10, 001 to 15,000. A total of 2 (4.00%) heads of departments alleged that the amount of money from IGA used in facilitating extra tuition was between Ksh. 15,001 to 20,000; 7 (14.00%) other heads of departments, 7 (87.5%) bursars and 5 (62.5%) headmasters said that the amount of money from IGA used in facilitating extra tuition was from Ksh.20,001 and above. Finally, 11 (22%) heads of departments had no idea about the amount of money from IGA used in facilitating extra tuition this results show that to a large extent the funds generated from the IGA was used in facilitating extra tuition.

The researcher further went on to ask the heads of departments how much of IGA proceeds was used in furnishing of the staffroom. The response is shown in table 4.18 below.

Table 4.18: Amount of money from IGA used in furnishing staffroom

Amount of money from IGA used in furnishing staffroom	Heads of Departments		Hursars		Headmasters	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Ksh.5000 and below	32	37.21			1	12.50
Ksh.5001-10,000	2	2.33				
Ksh. 10,001-15000	2	2.33				
Ksh. 15,001-20,000	2	2.33	8	100.00	7	87.50
Ksh.20,001 and above	6	6.98				
Don't Know	42	48.84				
Total	86	100.00	8	100.00	8	100.00

From table 4.18 above, 32 (37.21%) heads of department and 1 (12.5%) headmaster said that the amount of money from IGA spent in furnishing the staffroom was Ksh.5, 000 and below. 2 (2.33%) heads of departments said that the amount of money from IGA spent in furnishing the staffroom ranged between Ksh.5001 to 10,000. Another 2 (2.33%) heads of departments were of the opinion that the amount of money from IGA spent in furnishing the staffroom ranged between Ksh.10, 001 and 15, 000. 2 (2.33%) other heads of departments, 8 (100%) bursars and 7 (87.5%) headmasters thought that the amount of money from IGA spent in furnishing the staffroom ranged between Ksh.15, 001 and 20,000. 6 (6.98%) heads of departments said that the amount of money from IGA spent in furnishing the staffroom was Ksh.20, 001 and above and 42 (48.84%) heads of departments had no idea of the amount from IGA that was spent in furnishing the staffroom.

4.5 Influence of IGA adoption on students learning factors

The second objective of the study was to investigate the influence of students' factors on income generating activities. The specific student factors that were examined were if the schools had school bus, provision of food leisure time and sports and having textbooks in the department among others.

First the study sought to know the influence of school bus on the adoption of income generating activities. Table 4.19 below shows the cross tabulation between adoption of income generating activities and whether the school had school bus.

Table 4.19: Relationship between adoption of IGA and schools having a school van

School having a school bus/van	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Yes	7	18.42	31	81.58	38	100
No	29	60.42	19	39.58	48	100
Total	36	41.86	50	58.14	86	100

From the table 4.19, 29(60.42%) of the heads of departments who had no income generating activities in their school had no school van with only 7(18.42%) had a school bus, this was opposite of schools that had income generating activities; where 31(81.58%) had no school bus with only 19(39.58%) didn't have school bus. This results show that the having of an IGA activity was associated with possession of a school bus. The researcher sought to know using a chi - square test whether this association was statistically significant or just occurred as a matter of chance. Table 4.20 shows the results of the findings.

Table 4.20: Chi square testing the relationship between adoption of IGA and School having a school bus/van

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.369⁸	1	.000
Continuity Correction ^b	13.692	1	.000
Likelihood Ratio	16.182	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	15.191	1	.000
N of Valid Cases	86		

From table 4.20 the p - value (Asymp. Sig. 2-sided) of the chi - square test is 0.000, which is less than 0.05. It was therefore concluded that having income-generating activities and schools having schools vans were significantly dependent. The study therefore accepted the alternative hypothesis that there is a relationship through dependence between income generating activities and possession of school bus.

The study then sought to know how much of the income generating activities proceeds was used to purchase or maintenance of the school bus. The findings were as shown in the table

Table 4.21: IGA's proceeds used in huyiiiig/maiitcnance of the bus

IGA's proceeds used in buying/maintenance of the bus	Hoi)		Head teachers		Bursars	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
5000 and below	16	42.11	.	.	1	12.50
5001-10000	2	5.26	1	12.50	.	.
10001-15000	4	10.53	1	12.50	1	12.50
15001-20000	1	2.63	2	25.00	2	25.00
20001 and above	5	13.16	4	50.00	4	50.00
Don't know	10	26.32
Total	38	100.00	8	100.00	8	100.00

From table 4.21, 16(42.11%) heads of departments responded that less than 5000 shillings was spent in bus maintenance; 2(5.26%) heads of departments said that their schools used between 5001 and 10000; 4(10.53%) heads of departments said that their schools used between 10001 and 15000 from income generating activities to maintain the school bus; 1(2.63%) heads of departments said that their schools used between 15001 and 20000 shillings. The heads of departments who said that their schools above 20000 were only 5(13.16%) while 10(26.32%) didn't know how much proceeds from IGA's were used in repair and maintenance of the school van. Of the total 8 head teachers, 1 (12.5%) said that that their schools allocated around 5001 to 10001 to maintenance of the bus. 1(12.5%) head teacher reported that their schools used around 10001 to 15001, 2 (25.0%) allocated between 15001 and 20001 while majority of head teachers 4(50.0%) allocated more than 20000 shillings. 1 (12.5%) bursar came from schools that used used less than 5000 in maintenance of the bus, 1 (12.5%). The rest 4(50.0%) bursars came from schools that allocated more

20001 shillings and above in maintenance of the school bus.

From the views of most head teachers and bursars most schools allocated allocated more than 20000 shillings from the income generating activities towards the repair and maintenance of school van.

The study then sought to investigate relationship between schools having **IGA's** and schools providing learners with meal using a cross tabulation as shown in table 4.22 below.

Table 4.22: Influence of provision of meals and adoption of IGA

Are students provided with meals at school?	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq.	percent	Freq.	Percent
Yes	35	42.17	48	57.83	83	100
No	1	33.33	2	66.67	3	100
Total	36	41.86	50	58.14	86	100

Generally, most schools provided meals for their student with only 3 heads of departments coming from schools that did not provide learners with meals. Of the 83 heads of departments whose schools provided the learners with meals 35 (42.17%) had no income generating activities whereas 48(57.83%) had IGA's. on the other hand among the 3 heads of departments whose schools did not provide learners with meals 1 (33.33%) respondent came from schools that had no IGA's while 2(66.67%) had IGA's.

The researcher then wanted to establish if a relationship existed between schools providing meals for students and having income generating activities. Table 4.23 displays the findings.

Table 4.23: clii - square testing the influence of having IGA and schools provision of meals

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.292 ^a	3	.051
Likelihood Ratio	9.327	3	.025
Linear-by-Linear Association	.019		.891

A p-value (Asymp.Sig. 2 sided) of 0.51 which is greater than the significance level of 0.05. This is a clear indication that there existed no significant relationship between income generating activities and provision of meals to students this led to acceptance of the null hypothesis.

The study further investigated the amount used from IGA's to purchase meals for students.

Table 4.24 presents the findings.

Table 4.24: IGA's proceeds used in purchasing of meals for students

IGA's proceeds used in purchasing of meals for students	Hoi)		Head teachers		bursars	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
5000 and below	28	33.73	2	25		25
5001-10000	9	10.84	1	12.5		12.5
10001-15000	2	2.41				
15001-20000	0	0.00				
20001 and above	10	12.05		62.5		62.5
Don't know	34	40.96				
Total	83	100.00	8	100.00	8	100.00

From table 4.24, 28 (33.73%) heads of department thought that the amount of money from IGA spent on students' meals was Ksh.5, 000 and below. 9 (10.84%) heads of departments said that the amount of money from IGA spent on students' meals ranged between Ksh.5001 to 10,000. Another 2 (2.41%) heads of departments were of the opinion that the amount of money from IGA spent on teachers' meals ranged between Ksh.10, 001 and 15, 000. No head of department thought that the amount of money from IGA spent on students' meals ranged between Ksh.15, 001 and 20,000. 10 (12.50%) heads of departments said that the amount of money from IGA spent on teachers' meals was Ksh.20, 001 and above. Majority, 34 (40.96%) other heads of departments had no idea of the amount from IGA that was spent on students' meals. For the bursars and head teachers investigated gave similar response; 2(25.0%) bursars and 2(25.0%) head teachers allocated 5000 and below to students meal. Around 10001 to 15000 shillings awarded to students' meals was allocated according to 1 (12.5%) bursar and 1 (12.5%) head teacher. Finally five (62.5%) each bursar and head teachers allocated more than

20001 shillings toward students meals in the school.

The next aspect that the researcher explored was whether schools providing students with leisure time and sports was associated with having or not having IGA in the schools. Table 4.25 below shows the results of the findings.

Table 4.25: Influence of IGA on schools providing leisure time and sports to students

Does school provide leisure time and sports to students	Not having IGA		Having IGA		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
	Yes	35	41.67	49	58.33	84
No	1	50	1	50	2	100
Total	36	41.86	50	58.14	86	100

From table 4.25 above, 35 (41.67%) heads of departments who agreed that the school provides leisure time and sports for students did not have income generating activities in their schools. The remaining 49 (93.33%) heads of departments who said yes had income generating facilities in their schools. Of the 2 (100%) heads of departments who disagreed that schools provided leisure and sports for students, 1 was from school with IGA and the other one came from school with no IGA. In summary adoption of IGA was related to schools making provisions for leisure time and sports to students. The researcher went further to explore whether the dependence was statistically significant or not using a chi - square test and presented the findings as shown in table 4.26.

Table 4.26: Chi - square test investigating the relationship between provision of leisure and IGA

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.110 ^a	2	.348
Likelihood Ratio	2.828	2	.243
Linear-by-Linear Association	1.136	1	.287
N of Valid Cases	86		

From table 4.26 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.348 which is greater than 0.05. It can therefore be established that income generating activities and schools making provisions for leisure and sports were not dependent. Consequently, the researcher sought to establish the amount from IGA's proceeds that were used in facilitating leisure and sports for student. The response from the heads of department, head teachers and bursars was presented in the table 4.27.

Table 4.27: IGA's proceeds spent in facilitating leisure and sports for students

IGA's proceeds spent in facilitating leisure and sports for students	Hol)		Head teacher		Bursar	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
5000 and below	34	40.48		50.0		37.5
5001-10000				12.5		12.5
10001-15000	4	4.76		12.5		25.0
15001-20000				12.5		12.5
20001 and above	10	11.90		12.5		12.5
Don't know	36	42.86				
Total	84	100.00	8	100.00	8	100.00

From table 4.27, 34 (40.48%) heads of departments said that the amount of money from IGA used in facilitating leisure and sports was below Ksh.5000. 4(4.76%) other heads of departments said that the amount of money from IGA used in facilitating leisure and sports ranged between Ksh.10, 001 to 15,000. 10 (11.90%) other heads of departments said that the amount of money from IGA used in facilitating leisure and sports from Ksh.20001 and above. Finally, 36(42.86%) heads of departments had no idea about the amount of money from IGA used in facilitating leisure and sports for students. A total of 4(50.0%) head teachers and 3(37.5%) bursars respectively mentioned that less than 5000 shillings proceeds from IGA's was allocated for leisure and sports. The rest of the four head teachers each gave was of the opinion that their schools allocated 5001-10000, 10001-15000, 15001-20000, 20001 shillings and above to sports and leisure.

4.6 The relationship between curriculum improvements and IGA adoption

The third objective explored the relationship between schools adopting IGA and improvements in the curriculum. The researcher explored the relationship between adequacy of textbooks and adoption of IGA. Table 4.28 below shows the results of cross tabulation.

Table 4.28: Influence of adoption of IGA on availability of text books

Have enough textbooks in the department	Not having IGA		Having IGA		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Yes	7	24.14	22	75.86	29	100
No	29	50.94	28	49.06	57	100
Total	36	41.86	50	58.14	86	100

From table 4.28, of the 29 heads of departments who agreed that having enough textbooks in the department influences income generating activities, 7 (24.14%) did not have income generating activities in their schools and 22 (75.86%) heads of departments had income generating activities in their schools. Among the 57 heads of departments who did not agree that having enough teacher guides in the department 28 (49.06%) heads of departments had income generating activities in their school while 29 (50.94%) did not have IGA in their schools. These results bring out the fact that having IGA was associated with having enough textbooks in the schools. The researcher went ahead to explore whether this relationship was statistically significant or not using a chi - square test of dependence as presented in table 4.29 below.

Table 4.29: Chi - square test of dependence between availability of enough textbooks and adoption of IGA

	Value	(df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.292 ^a	3	.040
Likelihood Ratio	9.327	3	.025
Linear-by-Linear Association	.019	1	.891

From table 4.29 the p - value (Exact Sig. 2-sided) of the chi - square test is 0.040, which is less than 0.05. It was therefore inferred that income-generating activities and availability of text books were dependent. The study therefore accepted the alternative hypothesis that there is a relationship through dependence between income generating activities and having enough textbooks at the department.

The study investigated the amounts that were allocated towards purchasing textbooks for the department according to the respondents. Table 4.30 shows their response.

Table 4.30: IGA's precede spent on textbooks for department

Respondents	Hoi)		Head teachers		Bursar	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
IGA's precedes spent on textbooks for department.						
5000 and below	11	40.74	2	25.0	1	12.5
5001-10000	1	3.70	1	12.5	2	25.0
10001-15000	3	11.11	2	25.0	2	25.0
15001-20000	1	3.70	1	12.5	2	25.0
20001 and above	5	18.52	2	25.0	1	12.5
Don't know	6	22.22
Total	27	100.00	8	100.00	8	100.00

Majority of the heads of departments, in fact 11(40.74%) heads of departments used less than 5000 in purchase of textbooks, 1(3.70%) heads of departments said that their schools used between 5001 and 10000, 3(11.11%) heads of departments said that their schools used between 10001 shillings and 15000 shillings from income generating activities to purchase school text books, 1(3.70%) heads of departments said that the schools used between 15001-20000. Heads of departments who used above 20000 were only 5(18.52%) while 6 (22.22%) didn't know how much proceeds from IGA's were used in purchase of school textbooks. Two (25.0%) head teachers allotted less than 5000 to purchase books, 1 (12.5%) head teachers assigned between 5001 and 10000. 2 (25.0%) head teachers allocated between 10001 and 15000 shillings. About 15001 and 20000 was awarded by 1 (12.5%) head teacher while and final 2 head teachers allocated 20001 shillings and above for purchase of text books. In the case of bursars 1(12.5%) bursar came from a school that assigned less than 5000 shillings towards purchase of departments text books about 5001-10000 shillings, 10001-15000 and

20001 and **above were** allocated each by 2(25.0%) bursars respectively. Of the total bursars who were investigated only 1 (12.5%) came from a school that allotted 20001 shillings and above from the IGA's towards the purchase of departments text books.

The researcher then sought to investigate the relationship between availability of enough teaching aids and materials in departments and adoption of IGA using a cross tabulation as presented in table 4.31.

Table 4.31: Relationship between having enough teaching aids and materials in your department

Have enough teaching aids and materials in your department	Not having IGA		Having IGA		Total	
	Freq.	Percen	Freq.	Percen	Freq.	Percen
	t	t	t	t	t	t
Yes	6	26.09	17	73.91	23	100
No	30	47.62	33	52.38	63	100
Total	36	41.86	50	58.14	86	100

Out of the total 23 respondents who had enough teaching aids and materials, majority 17(73.91%) had income generating activities with only 6(26.09%) not having income generating activities. On the other hand respondents who gave out opinion of not having enough material, 33(52.38%) were from schools with income generating activities with only 30(47.62%) not having income generating activities. Majority of respondents across the divide headed departments with inadequate amount of teaching aids and materials. From this results it is clear that adoption of IGA was associated with having enough teaching aid and other materials in the departments. The study explored the significance of this relationship using a chi - square test of dependence as shown in table 4.32.

Table 4.32: Chi - square testing the relationship between adequacy of teaching material and adoption of teaching aid

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.210*	1	.031
Continuity correction	2.386	1	.002
Likelihood Ratio	3.336	1	.008
Fisher's Exact Test			
Linear-by-Linear Association	3.172	1	.007
N of Valid Cases	86		

From table 4.32 above there was a significant relationship in terms of dependency since a p-value of 0.031, which is a value less than 0.05, then we conclude that adoption of IGA was dependent on adequacy of teaching aid.

The study additionally explored the income generating activities' revenue spent on teaching aids and materials. The table 4.33 presents the response.

Table 4:33: IGA's proceed spent on teaching aids and materials

IGA's proceed spent on teaching aids and materials	Hoi)		Hi 11 teachers		Bursars	
	Freq	Percent	Freq	Percent	Freq.	Percent
5000 and below		39.13	3	37.5	2	25.0
5001-10000		4.35	1	12.5	2	25.0
10001-15000		13.04	3	37.5	2	25.0
15001-20000		4.35			1	12.5
20001 and above	2	8.70		12.5	1	12.5
Don't know	7	30.43				
Total	23	100.00		100.00	8	100.00

From the above table 4.33, 9(39.13%) HODs, 3(37.5%) head teachers and 2(25.0%) bursars came from schools that spent less than Ksh5000 and below for teaching aids and materials, 1(4.35%) head of department, 2(25.0%) head teachers and 1(12.5%) bursar used between 5001 and 10000. 3(13.04%) heads of department, 3(37.5%) head teachers and 2(25.0%) bursars spent between 10001 and 15000, 1(12.5%) head of department and 1(12.5%) bursar spent between 15001 and 20000 income generating activities with those who spent 20001 shillings and above were only 2(8.70%) head of departments, 1 (12.5%) head teacher and 1(12.5%) bursar. Some heads of department did not know how much proceeds from income generating activities used in teaching aids and materials

The study explored the relationship between having enough classrooms and adoption of IGA and presented the relationship using a cross tabulation in table 4.34.

Table 4.34: Influence of IGA on having adequate classrooms

Does your school have enough classrooms	Not having IGA		Having IGA		Total	
	frequency	Percent	frequency	Percent	frequency	Percent
Yes	5	20	20	80	25	100
No	31	50.82	30	49.18	61	100
Total	36	41.86	50	58.14	86	100

From table 4.34, out of the 25 heads of departments who said that they have enough classrooms 5(20%) alleged their schools had not adopted any IGA while 20(80%) had adopted some income generating activities. On the other hand among the 61 heads of departments whose schools did not have enough, 31(50.82%) were not having income generating activity in their respective schools, 30(49.18%) were having income generating activity. From this findings majority of the respondents that believed they are not having enough classrooms did not have income generating activities in their schools. The study also sought to find out using chi-square test of dependence the influence of IGA on adoption of IGA and presented the findings in table 4.35.

Table 4.35: Chi - square testing the significance of the relationship between availability of classrooms and adoption of IGA

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.921 ^a	1	.009
Continuity Correction ^b	5.712	1	.017
Likelihood Ratio	7.364	1	.007
Fisher's Exact Test			
Linear-by-Linear Association	6.840	1	.009
N of Valid Cases	86		

From table 4.35 the P value is 0.009, which is less than 0.05, this means that income generating activity is dependant and schools having adequate classrooms were dependent, the study therefore concluded that there is relationship between income generating activity and availability of classrooms.

The study explored the amounts earned from IGA that was spent on building classrooms.

Table 4.36 shows the results of the respondents.

Table 4.36: Amounts from IGA used in building classrooms

Amount of IGA used in building classrooms	Heads of department		Bursars		Headmasters	
	Frequency	Percent	Frequency	Percent	Frequency	percent
5000 and below	27	54.00				
5001-10000	1	2.00				
10001-15000	4	8.00		100		100
15001-20000	2	4.00				
20001 and above	7	14.00				
Don't know	9	18.00				
Total	50	100		100		100

From table 4.36 out of a total of 50 from heads of department who had adopted IGA in their schools, 27(54.00%) said that Ksh5000 and below from the IGA was used in building classrooms, 1(2.00%) alleged that their schools used between sh5001-10000 in building classrooms, 4(8.00%) HODs believed that their schools used between 10001 and 15000 shillings is used in maintenance of the classrooms, 2(4%) HODs thought that their schools used between 15001-20000 shillings in maintenance of the classrooms, 7(14%) HODs said over 20000 shillings were used in building of the classrooms and lastly 9(18%) HODs did not know how much was used in the maintenance of the classrooms. From the above findings most of the HOD's said 5000 and above is used in the building of the classrooms. All the 8 bursars and 8 headmasters claimed that their schools used between shillings 10001-15000 in building classrooms.

The study examined the influence of adoption of IGA and students being taken for trips and presented the findings in table 4.37 below.

Table 4.37: Relationship between departments taking students for trips and adoption of**IGA**

Department taking students for trips	Not having IGA		Having IGA		Total	
	Frequency	Percent	frequency	Percent	frequency	percent
Yes	25	36.76	43	63.24	68	100
No	11	61.11	7	38.89	18	100
Total	36	41.86	50	58.14	86	100

From table 4.37, 25(36.76%) of the 68 heads of departments whose schools some having income generating activity said that departments took students for academic trips, while 43(63.24%) who said they are having income generating activity thought their respective departments take the students for academic trips, this clearly shows that most of the respondents who agreed that their departments take students for academic trips supposed that they are having income generating activity, which constitutes to 43(63.24%). Also out of 18 respondents that said the departments don't take students for academic trips, 11(61.11%) were not having income generating activity in their respective schools, 7(38.89%) were having income generating activity. From this findings majority of the respondents that believed the departments don't take students for academic trips don't have income generating activity which adds up to 11(61.11%). The study did a chi - square test of dependence to determine the significance of the relationship between schools taking students for trips and availability of IGA in the schools and presented the findings in table 4.38.

Table 4.38: Chi - square testing the significance of the relationship between departments taking students for trips and adoption of ICA

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.466*	1	.001
Continuity Correction ¹	2.538	1	.111
Likelihood Ratio	3.429	1	.064
Fisher's Exact Test			
Linear-by-Linear	3.426	1	.064
Association			
N of Valid Cases	86		

Table 4.38 shows the results of the chi-square tests from table 4.4, and from this the p-value is 0.001 which is less than 0.05, therefore there is a relationship between **IGA** and the departments taking students for academic trips, i.e. **IGA** influences on the departments taking students for academic trips.

The study explored the amounts that the schools used in facilitating academic trips and presented the findings as shown in table 4.39.

Table 4.39: Amounts of IGA that is used in facilitating students academic trips

Much of IGA that is used in facilitating students academic trips	Heads of department		Headmasters		Bursars	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
5000 and below	18	36.00	1	12.5		
5001-10000	9	18.00	1	12.5		
10001-15000	6	12.00	1	12.5	7	87.5
15001-20000	2	4.00	5	62.5	1	12.5
20001 and above	5	10.00				
Don't know	9	18.00				
Not applicable	1	2.00				
Total	50	100	8	100	8	100

From table 4.39 above, out of a total of 50 heads of departments that came from schools that at least one **IGA** in their schools, 18(36%) said that the schools used sh500 and below from the **IGA** in facilitating students academic trips, 9(18%) alleged the schools used between 5001-10000 shillings in facilitating students' academic trips, 6(12%) HODs thought that 10001-15000 shilling from the **IGA** was used in facilitating students academic trips, 2(4%) heads of departments believed between 15001 and 20000 was used in facilitating students academic trips, 5(10%) HODs said over 20001 shillings was used in facilitating students academic trips, 9(18%) didn't much that is used in facilitating students academic trips while 1(2%) felt they cannot say. From these findings majority of the heads of departments said 5000 and below is used in facilitating student academic trips. Out of 8 headmasters, 1 (12.5%) said 5000 and below of **IGA** is used in facilitating students academic trips, 1(12.5%) claimed that 5001-10000 is used for students academic trips, 1(12.5%) alleged 10001-15000 is used in

facilitating students academic trips while 5(62.5%) said 15001-20000 of IGA is what is used in facilitating students academic trips. From these results most of the headmasters claimed that 15001-20000 of IGA is used in facilitating students academic trips, which adds up to 5(62.5%). Out of 8 bursars, 7(87.5%) alleged that 10001-15000 of IGA is used in facilitating students academic trips and 1(12.5%) claimed 15001-20000 is used for academic trips, most of the bursars said that 10001-15000 of the IGA is used for students educational trips, which constitutes to 7(87.5%).

The study explored the influence of IGA on the departments taking teachers on workshops and presented the analysis of the relationship in table 4.40 below.

Table 4.40 Relationship between adoption of IGA and departments taking teachers for workshops

Department take teachers for workshop	Not having IGA		Having IGA		Total	
	Frequency	percent	frequency	percent	Frequency	percent
Yes	27	39.71	41	60.29	68	100
No	9	50	9	50	18	100
Total	36	41.86	50	73.53	86	100

From table 4.38 out of a total of 68 respondents that agreed that the departments take teachers for workshop 27(39.71%) were not having IGA while 41(60.29%) are having IGA in their respective schools, and out of a total 18 respondents that said no that the departments don't take teachers for workshop 9(50%) are not having IGA in their schools and 9(50%) are having IGA ,from this findings it is clear that most of the respondents alleged departments take teachers for as compared to those who said no regardless of the school having or not having IGA. The study did a chi - square test of dependence to determine the significance of the relationship between schools taking students for workshops and availability of IGA in the

schools and presented the findings in table 4.41 below.

Table 4.41 Chi - square testing the significance of the relationship between IGA and departments taking teachers for workshops

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.620 ^a		.003
Continuity Correction ^b	.269		.604
Likelihood Ratio	.614		.433
Fisher's Exact Test			
Linear-by-Linear	.612		.434
Association			
N of Valid Cases	86		

Table 4.41 shows the results of the chi-square tests, from this the probability value is 0.003 which is less than 0.05 therefore this indicates that there is a relationship between department taking teachers for workshop and IGA, meaning IGA depends on the outcome of department taking teachers for workshop.

The study examined the amounts from the IGA that the schools used in facilitating the teachers workshops and presented the findings in table 4.42.

Table 4.42: Amounts from the IGA used in facilitating teachers workshops

Much of IGA used in facilitating teachers workshops	Heads of department		Head masters		Bursars	
	Frequency	Percent	frequency	percent	frequency	percent
5000 and below	24	48.00				
5001-10000	4	8.00				
10001-15000	5	10.00				
15001-20000	1	2.00	8	100	8	100
20001 and above	4	8.00				
Don't know	12	24.00				
Total	50	100	8	100	8	100

From table 4.42 out of a total 50 HODs whose schools had adopted, 24(48%) said the schools used less than 5000 shillings from IGA in facilitating teachers workshops, 4(8%) alleged that the schools used between shilling 5001-10000 is used in facilitating teachers workshops, 5(10%) believed 10001-15000 is used in facilitating teachers workshops, 1(2%) said 15001-20000 is used in facilitating teachers workshops, 4(8%) claimed 20001 and above is used in facilitating teachers workshops. From this findings most of the respondents said 5000 and below is used in facilitating teachers workshops which adds up to 24(48%). Out of 8 bursars and 8 headmasters, 8(100%) from each claimed that 15001-20000 of IGA is used in facilitating teachers workshops.

4.7 Influence of IGA adoption on support systems

The fourth objective of the study examined the relationship between adoption of IGA and support systems and presented the findings as shown in table 4.43.

Table 4.43 Relationship between adoptions of IGA and guidance and counseling

Dotsyour school have guidance and counseling	Not having IGA		Having IGA		Total	
	frequency	percent	frequency	percent	frequency	percent
~Yes ~ ~	36	41.86	50	58.14	86	100
Ibtal ~ ~ "	36	41.86	"50	58.14	86	"100

From table 4.43, all the 86 heads of departments came from schools that had had guidance and counseling. 36(41.86%) respondents came from schools that had IGA in their schools while the rest 50(58.14%) heads of departments came from schools that had no IGA. This clearly shows that most of the respondents are having IGA in their schools and they had adopted guidance and counseling as well. The study explored the amounts accruing from the IGA that the schools allocated to guidance and counseling and presented the findings in table 4.44 below.

Table 4.44: Amounts from IGA used in guidance and counseling

Much of IGA used in guidance and counseling	Heads of department		Headmasters		Bursars	
	Frequency	Percent	frequency	percent	frequency	percent
5000 and below	35	70				
5001-10000	5	10				
10001-15000	2	4				
15001-20000	1	2	8	100	8	100
Don't know	7	14				
Total	50	100	8	100	8	100

From table 4.44 out of a total of 50 heads of departments whose schools had adopted IGA in

their schools, 35(70%) said that they used less than shillings 5000 from the IGA is used in guidance and counseling, 5(10%) head teachers believed that they used between shillings 5001-10000 is used in guidance and counseling, 2(4%) heads of departments alleged that their schools used between shillings 10001-15000 from IGA in guidance and counseling, 1(2%) HOD claimed that their schools used between shillings 15001-20000 is used in guidance and counseling and lastly 7(14%) IIODs thought they don't know how much of IGA is used in guidance and counseling, From the point of view of the head teachers, the schools used less than shillings 5000 from the IGA on guidance and counseling. All bursars and headmasters claimed that their schools used between shillings 15001-20000 from IGA is used on guidance and counseling.

The study explored the relationship between adoption of IGA and possession of laboratories in the schools and presented the relationship in table 4.45.

Table 4.45 Relationship between adoption of IGA and presence of library and laboratory facilities

presence of library and laboratory facilities	Not having IGA		Having IGA			Total
	frequency	percent	Frequency	Percent	Frequency	Percent
Yes	35	44.3	44	55.7	79	100
No	1	14.29	6	85.71	7	100
Total	36	41.86	50	58.14	86	100

From table 4.45 out of a total of 79 HODs that said they had library and laboratory facilities in their schools 35(44.3%) had not adopted some IGA while 44(55.7%) were having IGA. On the other hand out of 7 HODs that alleged were no of library and laboratory facilities in their schools, 1(14.29%) was not having IGA in their schools while 6(85.71%) are having IGA.

The study went further to explore whether there was a significant relationship between

adoption of IGA and possession of libraries and laboratories using the chi - square test and presented the findings in table 4.46 below.

Table 4.46: Chi square testing the significance of the relationship between adoption of IGA and presence of library and laboratory facilities

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.381 ^a	1	.252
Continuity Correction ^{1"}	1.307	1	.253
Likelihood Ratio	2.701	1	.100
Fisher's Exact Test			
Linear-by-Linear Association	2.353	1	.125
N of Valid Cases	86		

From table 4.46, there was no significant relationship between adoption of IGA and availability of libraries or laboratory facilities in the schools. This was read from the fact that the p - value of the chi square test was 0.252 which is a value greater than 0.05, meaning that we fail to reject the null hypothesis that adoption of IGA is not dependent on presence of library or laboratory facilities.

The researcher capped the study by exploring the opinion of the heads of departments on the influence of the IGA on specific outcomes such as teacher working conditions, students learning process, improvement of support systems and the curriculum, table 4.47 shows response results of the findings.

Table 4.47: Influence of IGA on teachers working conditions according to the HODs

Development IGA produced on teachers working conditions	Frequency	Percent
Much	6	6.98
Average	32	37.21
No	13	15.12
Don't know	35	40.70
Total	86	100

From the views of the 11 HODs as presented in table 4.47, out of 86 respondents 6 (6.98%) were of the opinion that IGA much improved the teacher working conditions, 32 (37.21%) felt the IGA averagely improved the teachers working conditions, 13 (15.12%) said it has produced no influence on the teacher working conditions and 35 (40.70%) didn't know to what extent IGA influenced the teacher working conditions. From these findings it is clear that most of the HODs didn't know to what extent IGA had contributed to the teacher working condition. While among the HODs who knew, most believed that it influenced to an average extent the teachers working condition. Very few HODs believed that the IGA had positive influence on the teacher working conditions.

The study explored the 11 HODs opinion on the influence of IGA on the teacher learning conditions and presented the findings in table 4.48.



Table 4.48: Influence of IGA on student learning process according to the HODs

Level IGA has uplifted student learning process	frequency	Percent
High level	5	5.81
Average level	31	36.05
Low level	15	17.44
Don't know	35	40.70
Total	86	100

From table 4.48 out of 86 HODs, 5(5.81%) felt that IGA has uplifted students learning process to a high extent, 31(36.05%) said it has uplifted learning process to an average extent, 15(17.44%) believed it has brought learning process to a low extent and 35(40.70%) didn't know to what level it IGA had uplifted students learning process. From these findings it is clear that most of the HODs didn't know to what extent IGA had contributed to the student learning process. While among the HODs who knew, most believed that it influenced to an average extent the student learning process. Very few HODs believed that the IGA had influenced on the student learning process to a high level.

The study explored the opinion of the HODs on the level to which IGA had improved curriculum in the schools and presented the findings in table 4.49.

Table 4.49: Influence of IGA on curriculum development process according to the

HODs

Level IGA has improved curriculum in the school	Frequency	percent
High level	3	3.49
Average level	32	37.21
Low level	16	18.60
Don't know	35	40.70
Total	86	100

From table 4.49, out of 86 HODs 3(3.49%) said that IGA had improved curriculum in the school to a high level, 32(37.21%) felt it had contributed to the curriculum development to an average level, 16(18.6%) thought it has brought curriculum development in the school to a low level and 35(40.7%) didn't know to what level IGA had improved curriculum in the school. Just like in the case of learning process and teachers working conditions, most of the HODs did not know the influence of IGA on the development process.

Lastly the study explored the teachers opinion on the development of the support systems and presented the findings in table 4.50.

Table 4.50: Influence of IGA on improved support system according to the HODs

"Extent IGA has improved support system in the school	frequency	percent
High level	2	2.33
Average level	35	40.7
Low level	13	15.12
Don't know	36	41.86
Total	86	100

From table 4.50, out of 86 respondents 2(2.33%) felt IGA had improved support system in the school to a high extent, 35(40.7%) said it has improved the support system in the school to an average extent, 13(15.12%) believed it has brought support system in the school to a low extent and 36(41.86%) didn't know the extent to which it has improved support system in the school. From this results it is clear that majority of the HODs were oblivious of the extent IGA had improved support system.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the research findings and the conclusions from the findings and further gives recommendations for practice. This chapter also presents the contribution that this study makes to the body of knowledge as well as providing suggestions for further study.

5.2 Summary of findings

The first objective of the study explored the influence of the IGA activities on teacher working conditions. The study found that at 5% level of significance, adoption of IGA was related to having teacher-working guides with a P - value of 0.043. The study found that there is a significant relationship through dependence between income generating activities and whether teachers receive meals at 5% level of significance with a p - value of 0.018. The study established that there was a significant relationship between schools adopting IGA and availability of housing facilities for teachers in schools at 5% level of significance with a P-value of 0.000. the study established there was a significant relationship through dependence between income generating activities and availability of extra tuition programs in schools at 5% level of significance with a p - value of 0.000.

The second objective of the study was to investigate the influence of students' factors on IGA. The study established that there was a significant relationship through dependence between income generating activities and possession of school bus at 5% level of significance with a p - value of 0.000. It was established that there existed no significant relationship between IGA and provision of meals to students at 5% level of significance with a p - value of 0.051. The study established that IGA and schools making provisions for leisure and sports were not dependent at 5% level of significance with a p - value of 0.348.

The third objective explored the relationship between schools adopting IGA and improvements in the curriculum. The study found that there is a significant relationship through dependence between income generating activities and having enough textbooks at the department at 5% level of significance with a p - value of 0.04. The study found that schools having IGA and availability of text books were dependent at 5% level of significance with a p - value of 0.04. the study found that at 5% level of significance adoption of IGA was dependent and adequacy of teaching aid were related with a P - value of 0.031. The study established that there was a significant relationship between schools adopting IGA and availability of classrooms at 5% level of significance with a p - value of 0.009. The study found that there was a significant relationship between schools adopting IGA and schools taking students for academic trips at 5% level of significance with a p - value of 0.01. The study found that there was a significant relationship between IGA department taking teachers for workshop at 5% level of significance with a p-value of 0.03.

The fourth objective of the study examined the relationship between adoption of IGA and support systems. The study found that adoption of IGA is not dependent on presence of library or laboratory facilities. The study found that all the schools were having guidance and counseling systems in their programs and therefore possession of IGA could not be credited to ensuring that schools had guidance and counseling systems.

5J Conclusions

The study investigated that factors that related to the adoption of IGA in the schools and found that these factors were categorized into three broad factors namely: teacher working conditions, specific students' factors and improvements in the curriculum. In the case of teachers working conditions the study found that at 5% level of significance the specific teacher working conditions that were associated with availability of IGA were teachers receiving meals in schools, availability of housing facilities and provision of extra tuition

programs to learners in schools. In the case of specific students factors the study found that at 5% level of significance there was a significant relationship through dependence between income generating activities and possession of school. In the case of improvement in curriculum, the study found that at 5% level of significance having enough textbooks at the department, adequacy of teaching aid and availability of classrooms were associated with having IGA in the schools.

5.4 Recommendation

The study recommends that the schools should involve the head of departments in the allocation of funds accruing from IGA to the different departmental tasks. This is because this study largely established that it was only the head teacher and the bursar who knew the amounts that the schools allocated to the different tasks in the schools departments. This is better because the HOD is the one in charge of running the departmental tasks.

5.5 Suggestion for further study

The study suggests that future researcher should do the same study in other areas more so in the urban areas so as to compare with the findings of this study.

The study suggests that future researchers should try do the same study but explore the contribution of the underlying confounding factors. This is because though this study has established that IGA was associated with teacher working conditions, specific students' factors and improvements in the curriculum, it could be actually that there are some underlying confounding factors that cause this relationship.

5.6 Contribution to the body of knowledge

The study contributed to the body of knowledge as presented in table 5.1 below.

Table 5.1 Contribution to the body of knowledge

Objective	Contribution to the body of knowledge
The first objective of the study explored the influence of the IGA activities on teacher working conditions.	Adoption of IGA was related to having teacher-working guides with a P-value of 0.043. Adoption of IGA and whether teachers receive meals at 5% level of significance with a p-value of 0.018. Adopting IGA and availability of housing facilities for teachers in schools at 5% level of significance with a P-value of 0.000. Adoption of IGA and availability of extra tuition programs in schools at 5% level of significance with a p-value of 0.000.
The second objective of the study was to investigate the influence of students' factors on IGA.	The relationship between adoption of IGA and possession of school bus at 5% level of significance had a p-value of 0.000. There existed no significant relationship between IGA and provision of meals to students at 5% level of significance Adoption of IGA and schools making provisions for leisure and sports were not dependent at 5% level of significance with a p-value of 0.348.
The third objective explored the relationship between schools adopting IGA and improvements in the curriculum.	Adoption of IGA and having enough textbooks at the department were related at 5% level of significance with a p-value of 0.04. Adoption of IGA and availability of text books were dependent at 5% level of significance with a p-value of 0.04. At 5% level of significance adoption of IGA and adequacy of teaching aid were related with a P-value of 0.031.

Adopting IGA and availability of classrooms at were related at 5% level of significance with a p - value of 0.009.

Adopting IGA and schools taking students for academic trips were related at 5% level of significance with a p - value of 0.01.

Adoption of IGA and the department taking teachers for workshop were related at 5% level of significance with a p - value of 0.03.

The fourth objective of Adoption of IGA is not dependent on presence of library or the study examined the laboratory facilities.

relationship between adoption of IGA and support systems.

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APPENDICES

Appendix 1: Letter of transmittal

Dear Sir/Madam,

I am Nyonje D. Achumbi student at the university of Nairobi studying project planning and management, Reg. no L50/66020/10 .I am conducting a study to determine the influence of income generating activities on schools teaching and learning environment in public secondary schools in Bungoma south District.

To facilitate this study ,you are kindly requested to participate in answering the questionnaires provide to you .please ,be assured that the information obtained will be held in strict confidence and will be used for the purpose of establishing the influence of income generating activities on teaching and learning environment improvement in public schools in Bungoma South District.

Thank you in advance for your cooperation

Nyonje D. Achumbi

HEADMASTER'S QUESTIONNAIRE

I am a post graduate student in the department of extra mural student university of Nairobi pursuing a degree of masters of Arts in project planning and management .I wish to carry out research on influence of income generating activities on schools teaching and learning environment in public secondary schools in Bungoma South District .I will be grateful if you answer the questions here I Any information will be kept confidential and be used for the purpose of this study only.

1.0 SECTION A. BACKGROUND INFORMATION

1. Name of the school

2. Category of school,

Boys boarding Q]

Girls boarding ●

Mixed boarding Q

Boys day j"

Girls d a y Q

Mixed day [

Mixed day/boarding

3.How would you rate the financial position of your school

Very Good Q

Good Q

Satisfactory Q

Bad ●

Very Bad[|

4. Have you ever attended training on IGA Project management?

Yes ●

No Q

5.a) Do you have any income generating activities (IGA) in your school?

Yes No

b) If so, Indicate items /facilities you have developed for IGA income

School canteen School bus/Van



Crop farming

Animal farming

Any other explain

6. How Much do you get from your school based IGA annually?

Kshs.20,000 and below Kshs.20,001.... 50,000

Ksh.50,001....100,000 Ksh. 100,001 and above

7. a) Do you think you have potential of generating more through IGA projects ?

Yes No

b) If yes ,Name some of the potentials

SECTION B: TEACHERS WORKING CONDITIONS AND IGA.

Please answer the following questions by ticking the right response.

8.a) In the past two financial; years ,did you allocate any money from IGA in purchasing of teachers guides?

Yes No

b) Ifso , how much money from IGA did you allocate?

Kshs.5000 and below Q Ksh. 500110,000 | |

Ksh 10,001.....15,000 EH Ksh. 15,00120,000 I I

Ksh.20,001 and above [

9.a) In the Past two financial years ,did you allocate any money from IGA on buying

meals • teachers ? •

Yes No

b) Ifso how much from IGA did you allocate?

Ksh.5000 and below Q Ksh.5001.10,000 Q

Ksh 10,001.15,000 • Ksh. 15,00120,000

Ksh.20,001 and above [

10.a) In the past two financial years,did you allocate any money from IGA on building and maintenance of teacher' house?

Yes Q No Q

b) Ifso, how much money from IGA dc did you allocate?

Ksh.500 and below Q] Ksh.5001... 10,000 Q]

Ksh. 10,001.15,000 Q Ksh. 15,001. 20,000 | |

Ksh 20,001 and above I I

11j) In the past two financial years did you allocate any money from IGA for payment of extra tuition services?

Yes • No Q

b) If so, how much money from IGA did you allocate ?

Ksh.5000 and below Q Ksh.5,001.....10,000 Q

Ksh.10,00115,000] Ksh.15001.....20,000 | |



Ksh.20,001 and above

12. a) In the past two financial years, did you allocate any money from IGA for furnishing the staff room?

Yes Q No | |

b) If so, How much money from IGA did you allocate ?

Ksh.500 and below Q Ksh.5001.....10,000 •

Ksh. 10,001.15,000 Ksh. 15,001.....20,000 | |

Ks.20,001 and above

SECTION C: STUDENTS LEARNING PROCESS AND IGA

13. a) In the past two financial years, did you allocate any money from IGA for purchasing maintenance of school bus/van?

Y e Q N c O

b) If yes, indicate the amount allocated

Ksh.5000 and below [Ksh500110,000

Ksh. 10,001... 15,000 • Ksh. 15,001....20,000 •



Ksh.20,001 and above

14a) In the past two financial year did you allocate and money from IGA for buying meals for students leisure time and sports?

Yes Q No Q]

b) If yes, indicate the amount allocated

Ksh.5000 and below | | Ksh.5001. . . .10,000 Q

Ksh. 10,001... 15,000 Q Ksh. 15,001.. ..20,000 Q

Ksh.20,001 and above [

15.a) In the past two financial years did you allocate any money from IGA e to facilitate student's leisure time sports?

Yes Q NO Q

b) if Yes , indicate the amount allocated.

Ksh.5000and below Ksh.5001. . . .10,000 Q]

Ksh. 10,001 15,000 • Ksh. 15,001....20,000 •

Ksh 20,001 and above II

SECTION D): CURRICULUM IMPROVEMENT AND IGA

16.a) In the past two financial years, did you allocate from IGA for buying text books?

Yes No

b) If yes, indicate the amount allocated _____

Ksh. 5000 and below • Ksh. 500110,000



Ksh. 10,001....15,000 Ksh. 15,001....20,000

Ksh. 20,001 and above

17 a) In the past two financial years did you allocate any money from IGA for buying teaching aids and materials ?

Yes No

b) If so, indicate the amount allocated

Ksh. 5000 and below • Ksh. 5001.10,000

Ksh. 10,001... 15,000 • Ksh. 15,001. ... 20,000

Ksh. 20,001 and above

18.a) In the past financial years, did you allocate any money from IGA for building of classrooms /maintenance?

Yes No

b) If yes, indicate the amount allocated

Ksh. 5000 and below Ksh. 5001 ...10,000

Ksh. 10,001.15,000 • Ksh. 5,001....20,000

Ksh. 20,001... and above

19a) In the past two financial years did you allocate any money from IGA for facilitating educational trips?

Yes No

b) If so, indicate the amount allocated

Ksh.5000 and below Ksh.5,00110,000

Ksh.10,001,15,000 Ksh. 15,00120,000

Ksh.20,001 and above

20a) In the past two financial years ,did you allocate any money from IGA for taking teachers for workshops?

Yes No

b) If Yes .indicate the amount allocated

Ksh. 5000 and below Ksh.5001....10,000

Ksh.10,0001 ...15,000 Ksh. 15001....20,000

Ksh.20,001 and above

SECTION E: SUPPORT SYSTEM AND IGA

21. In the past two financial years, did you allocate any money from IGA for payment of non -teaching staff?

Yes No

b)If yes , indicate the amount allocated.

Ksh. 5000 and below Ksh.5001.10,000

Ksh. 10,0001. 15,000 Ksh. 15001. 20,000

Ksh 20,001 and above

22^)^In the past two financial years, did you allocate any money from IGA for facilitating guidance and counseling process?

Yes No

b)If yes, indicate the amount allocated.

Ksh. 5000 and below Ksh.5001...10,000

Ksh. 10,001 ...15,000 Ksh.15001...20,000

Ksh.20,001 and above

23.a) In the past two financial year did you allocate any money fro IGA for supporting the library and laboratory facilities.

Yes No

SECTION F: IGA OUTCOMES IN SCHOOLS

24.What development extent has IGA produced on your teacher working conditions?

Much development Average development

No development

25. Which level has IGA uplifted your students learning process?

High level Average level

Low level

26. To what level has IGA improved curriculum in your school?

High level) Average level

Low level

27. What extend has IGA improved support system in your school?

High level CD Average level j ^

Low level

APPENDIX 3

SCHOOL BURSAR QUESTIONNAIRE

I am a post graduate student in the department of extra mural student university of Nairobi pursuing a degree of masters of Arts in project planning and management .I wish to carry out research on influence of income generating activities on schools teaching and learning environment in public secondary schools in Bungoma South District .I will be grateful if you answer the questions here I Any information will be kept confidential and be used for the purpose of this study only.

1.0 SECTION A. BACKGROUND INFORMATION

1. Name of the
school

2. Category of school,

Boys boarding

Girls boarding

Mixed boarding Q^j

Boys day [

Girls day[^]

Mixed day £

Mixed day/boarding Q

3.How would you rate the financial position of your school

Very Good Q

Good

Satisfactory Q

Bad

Very Bad[^

4. Have you ever attended training on IGA Project management?

Yes

N o Q

5.a) Do you have any income generating activities (IGA) in your school?

Yes

No

b) If so, Indicate items /facilities you have developed for IGA income

School canteen

School bus/Van

Crop fanning

Animal fanning

Any other explain _____

6. How Much do you get from your school based IGA annually?

Kshs.20,000 and below

Kshs.20,001.... 50,000

Ksh.50,001.... 100,000

Ksh.100,001 and above

7. a) Do you think you have potential of generating more through IGA projects ?

Yes

No

b) If yes ,Name some of the potentials _____

SECTION B: TEACHERS WORKING CONDITIONS AND IGA.

Please ,answer the following questions by ticking the right response.

8.a) In the past two financial; years ,did you allocate any money from IGA in purchasing of teachers guides?

Yes

No

b) Ifso ,how much money from IGA did you allocate?

Kshs.5000 and below • Ksh. 500110,000 •

Ksh 10,001.....15,000 [• Ksh. 15,001....20,000 •

Ksh.20,001 and above [

9.a) In the Past two financial years ,did you allocate any money from IGA on buying meals for teachers ?

Yes • No •

b) Ifso how much from IGA did you allocate?

Ksh.5000 and below Q Ksh.5001.....10,000 Q

Ksh 10,001.....15,000 • Ksh. 15,00120,000 []

Ksh.20,001 and above [

10.a) In the past two financial years ,did you allocate any money from IGA on building and maintenance of teacher' house?

Yes Q No | |

b) Ifso, how much money from IGA dc did you allocate?

Ksh.500 and below j~J Ksh.5001... 10,000

Ksh. 10,001.....15,000 Q Ksh. 15,001. 20,000 []

Ksh 20,001 and above I I

10) In the past two financial years did you allocate any money from IGA for payment of extra tuition services?

Yes No

b) If so, how much money from IGA did you allocate?

Ksh. 5000 and below Ksh. 5,001.....10,000

Ksh. 10,00115,000 Ksh. 15,001.....20,000

Ksh. 20,001 and above

12. a) In the past two financial years, did you allocate any money from IGA for furnishing the staff room?

Yes No

b) If so, How much money from IGA did you allocate?

Ksh. 500 and below Ksh. 5001.....10,000

Ksh. 10,001.....15,000 Ksh. 15,001.....20,000

Ksh. 20,001 and above

SECTION C: STUDENTS LEARNING PROCESS AND IGA

13. a) In the past two financial years, did you allocate any money from IGA for purchasing maintenance of school bus/van?

Yes No

b) If yes, indicate the amount allocated

Ksh.5000 and below Ksh.5001....10,000

Ksh.10,001... 15,000 Ksh. 15,001....20,000

Ksh.20,001 and above

14) In the past two financial years did you allocate any money from IGA for buying meals for students leisure time and sports?

Yes No

b) If yes, indicate the amount allocated

Ksh.5000 and below Ksh.5001. . . .10,000

Ksh.10,001... 15,000 Ksh. 15,001....20,000

Ksh.20,001 and above

15.a) In the past two financial years did you allocate any money from IGA to facilitate student's leisure time sports?

Yes No

b) if Yes, indicate the amount allocated.

ksh.5000 and below Q] Ksh.500110,000 •

Ksh.10,00115,000 Q Ksh. 15,001.....20,000•

Ksh.20,001 and above ●

SECTION D: CURRICULUM IMPROVEMENT AND IGA

16.a) In the past two k financial years ,did you allocate from IGA for buying text books?

Yes Q] No | |

b) If yes .indicate the amount allocated [^] [^]

Ksh.5000 and below Q Ksh 500110,000



Ksh.10,001....15,000 Q] Ksh. 15,001.....20,000

Ksh.20,001 and above Q

17 a) In the past two financial years did you allocate any money from IGAj for buying teaching aids and materials ?

Yes Q No | |

b) If so indicate the amount allocated

Ksh.5000 and below EH Ksh.5001.10,000 •
Ksh. 10,001...15,000 |—| Ksh. 15,001. . . . 20,000 |—|

Ksh20,001 and above II

18J) In the past financial years, did you allocate any money from IGA for building of classrooms /maintenance?

Yes No

b) If yes, indicate the amount allocated

Ksh.5000 and below Ksh.5001 ...10,000

Ksh. 10,001 ...15,000 Ksh.5,00120,000

Ksh. 20,001... and above

19a) In the past two financial years did you allocate any money from IGA for facilitating educational trips?

Yes No

b) If so, indicate the amount allocated

Ksh.5000 and below Ksh.5,00110,000

Ksh. 10,00115,000 Ksh. 15,001....20,000

Ksh.20,001 and above

20a) In the past two financial years, did you allocate any money from IGA for taking teachers for workshops?

Yes No

23j) In the past two financial year did you allocate any money fro IGA for supporting the library and laboratory facilities.

Yes Q No | |

SECTION F: IGA OUTCOMES IN SCHOOLS

24.What development extent has IGA produced on your teacher working conditions?

Much development Average development Q]]

No development [

25. Which level has IGA uplifted your students learning process?

High level Q] Average level []

Low level |—|

26. To what level has IGA improved curriculum in your school?

High level Q Average level []

Low level

27. What extend has IGA improved support system in your school?

High level [] Average level []

Low level Q

HEADS OF DEPARTMENTS QUESTIONNAIRE

Dear Respondent,

I am a post graduate student from the department of Extra studies in the University of Nairobi pursuing a degree of Masters of Arts in project planning and management. I'm carrying out a research on influence of income generating activities on teaching and learning environments in public secondary schools in Bungoma South District. I will be grateful if you answer for me the questions outlined in this questionnaire. Any information provided will be confidential and be used for this study only.

SECTION A: BACKGROUND INFORMATION

1. H.O.Ds gender

Male

Female

3. What is your teaching experience?

Less than one year

1-5 years

6-10 years

11 and above

4. How long have you been head of department?

Less than one year

1-5 YEARS

6-10 years

11 and above

5. Do you think your school is potential in income generating activities (IGA) project?

Yes

No

a) If yes suggest types of IGA your school has potential income generating activities(IGA) projects?

Yes • No •

b) If yes suggest types of IGA your school has potential in.

6. Name any of the IGA projects that your school is involved in

School canteen

School bus/van

Crop farming

Animal farming

Any other, state

SECTION B: TEACHERS WORKING CONDITION AND IGA

5. a) Do you have enough teachers guides in your department

Yes • No •

b) How much money from the IGA was spent on purchasing the guides

Kshs 5000 and below Ksh 5001 -10,000

Ksh 10,001 -15,000 Kshs 15,001 -20,000

Ksh 20,001 and above

6. a) Do teachers receive mails in school?

Y e Q

N o Q

b) How much do you thing spend from IGA proceeds for facilitating this?

Ksh 5000 and below • Ksh 5,001 -10,000 [J

•

Ksh 10,001-15,000 [—| Ksh 15,001-20,000

Ksh 20,001 and above Q

7 a) Do your school have housing facilities for teachers?

Y e s Q

No Q

b) How much from IGA proceeds is spent on building/maintenance of the housing facilities

Ksh 5000 and below • Ksh 5,001-10,000 •

Ksh 10,001 -15,000 • Ksh 15,001 -20,000 •

Ksh 20,001 and above •

8 a) Do your school have extra tuition programmes?

Yes Q

No | |

b)How much of IGA proceeds is used in facilitating extra tuition services?

Ksh 5000 and below | | Ksh 5,001-10,000 •

Ksh 10,001 -15,000 • Ksh 15,001 -20,000 •

Ksh 20,001 and above

9.a) How much of IGA proceeds is used in furnishing of the staff room?

Ksh 5000 and below | | Ksh 5,001-10,000 •

Ksh 10,001 -15,000 • Ksh 15,001 -20,000 •

Ksh 20,001 and above

SECTION C: STUDENT S LEARNING PROCESS AND IGA

10. a) Does your school have a school bus/van

Yes

No

b)How much of IGA proceed is used in buying/maintenance of the bus?

Ksh 5000 and below • Ksh 5,001-10,000 •

Ksh 10,001 -15,000 • Ksh 15,001 -20,000 •

Ksh 20,001 and above

11.a) Are your students provided with meals at school?

Yes

No

b) How much of IGA proceeds is used in purchasing of meals for students

Ksh 5000 and below | Ksh 5,001-10,000

Ksh 10,001-15,000 • Ksh 15,001-20,000 I

Ksh 20,001 and above •

12.a) Do your school provide leisure time and sports to your students?

Yes

No

b) How much of IGA proceeds is spent in facilitating this ?

Ksh 5000 and below | Ksh 5,001-10,000

Ksh 10,001-15,000 • Ksh 15,001-20,000 I

Ksh 20,001 and above

SECTION D): CURRICULUM IMPROVEMENT AND IGA

13.a) Do you have text books in your department?

Yes

No

b) How much of IGA proceeds is spent in facilitating this?

Ksh 5000 and below | | Ksh 5,001-10,000 •

Ksh 10,001-15,000 • Ksh 15,001-20,000 I

Ksh 20,001 and above I I

14.a) Do you have enough teaching aids and materials in your department?

Yes • No I I

b) If so, how much of IGA proceeds is spent in facilitating this?

Ksh 5000 and below • Ksh 5,001-10,000 •

Ksh 10,001 -15,000 • Ksh 15,001 -20,000 •

Ksh 20,001 and above

15.a) Do you have enough classrooms in your school?

Yes • No •

b) How much of IGA proceeds is used in building/maintenance of the classrooms?

Ksh 5000 and below | | Ksh 5,001-10,000 •

Ksh 10,001-15,000 • Ksh 15,001-20,000 I

Ksh 20,001 and above I I

16.a) Does your department take the students for academic trips?

b) If so, how much of IGA proceeds is spent on facilitating this?

Ksh 5000 and below Ksh 5,001-10,000

Ksh 10,001 -15,000 Ksh 15,001 -20,000

Ksh 20,001 and above

17.a) Does your department take teachers for workshops?

Yes No

b) If yes, how much of IGA proceeds is spent on facilitating this

Ksh 5000 and below Ksh 5,001-10,000

Ksh 10,001-15,000 Ksh 15,001-20,000

Ksh 20,001 and above

SECTION F: IGA OUTCOMES IN SCHOOLS

20. What development extent has IGA produced on your teachers working conditions?

Much development

Average development

No development

21. Which level has IGA uplifted your students learning process ?

High level •

Average level

Low level

22. To what level has IGA improved curriculum in your school?

High level

Average level

Low level

23. What extent has IGA improved support system in your school?

High level

Average level

Low level

APPENDIX 4: SAMPLE SIZE (S) REQUIRED FOR THE GIVEN POPULATION (N)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

NOTE: From R.V. Krejcie and D.W. Morgan (1970), Determining sample size for research activities, Education and psychological measurement, 30, 608, Sage Publication.