

**FACTORS INFLUENCING PUBLIC PARTICIPATION IN
MANAGEMENT OF INFRASTRUCTURE PROJECTS IN
PUBLIC PRIMARY SCHOOLS IN TRANSMARA EAST SUB
COUNTY, NAROK COUNTY, KENYA**

BY

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**RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF A DEGREE OF MASTER OF ARTS IN
PROJECT PLANNING AND MANAGEMENT,**

UNIVERSITY OF NAIROBI

2015

DECLARATION

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

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DEDICATION

I dedicate this research project report to my mother Stella Orego for her prayers and moral support during the entire period of my master's education.

ACKNOWLEDGEMENT

I wish to acknowledge my supervisor, Professor Charles Rambo for his constructive criticism during the period of writing this research project report. His constant and timely guidance enabled me to finish the research project in time and as required. Similarly, lessons on Research Methods by Mr. Odhiambo Onuonga further equipped me with appropriate skills in developing my research report with few challenges. Moreover, my gratitude also goes to all my lecturers for ensuring that units on Project Planning and Management were timely and adequately covered. Effort of my classmates, especially Joyce Chemwa, Gitonga Elias Githaura and Robert Mutai offered constructive criticism of this work and enabled me to make timely corrections on the content of my work, especially on reviewing Literature for the study. I also wish to acknowledge the effort of my typists, Naomy Chepkirui and Nancy Chepkorir who worked tirelessly to type set this work.

TABLE OF CONTENT

TITLE	PAGE
DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENT	v
LIST OF FIGURES	x
LIST OF TABLES	xi
LIST OF ABBREVIATION AND ACRONYMS	xiii
ABSTRACT	xiv
CHAPTER ONE: INTRODUCTION.....	1
1.1. Background of the study	1
1.2. Statement of the problem	4
1.3. Purpose of the study	5
1.4. Objectives of the study	5
1.5. Research questions	6
1.6. Significance of the study	6
1.7. Limitations of the study	7
1.8. Basic assumptions of the study	8
1.9. Delimitations of the study	8
1.10. Definition of significant terms as used in the study	8
1.11. Organization of the study	9
CHAPTER TWO: LITERATURE REVIEW.....	11
2.1. Introduction	11
2.2. Public Participation in Management of Infrastructure Projects	11
2.3. Influence of Community Awareness on Public Participation In Management of Infrastructure Projects	12

2.4. Influence of Level of Education on Public Participation on Management of Infrastructure Projects... 15

2.5. Influence of Community Leadership on Public Participation in Management of Infrastructure Projects 17

2.6. Influence of Socio-Cultural Factors on Public Participation on Management of Infrastructure Projects... 20

2.7. Theoretical Framework of the Study 23

2.8. Conceptual Framework 25

2.9. Gaps in Literature Review 28

2.10. Summary of Literature Review 30

CHAPTER THREE: RESEARCH METHODOLOGY.....32

3.1. Introduction 32

3.2. Research Design 32

3.3. Target Population 33

3.4. Sample size and Sample Selection 33

3.4.1. Sample Size 34

3.4.2. Sample Selection 34

3.5. Data Collection Instruments 34

3.5.1. Piloting of the Instruments 35

3.5.2. Validity of the Instruments 35

3.5.3. Reliability of the Instruments 36

3.6. Procedure of Data Collection 36

3.7. Techniques for Data Collection 37

3.8. Operational Definition of Variables 38

3.9. Methods of Data Analysis	40
3.10. Ethical Consideration	41
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION.....	42
4.1. Introduction	42
4.2. Questionnaire return rate	42
4.3. Demographic characteristics of respondents	42
4.3.1. Sex of respondents	43
4.3.2. Age of respondents	43
4.3.3. Marital status of respondents	44
4.3.4. Level of education attained	45
4.3.5. Occupation of respondents	46
4.3.6. Administrative location of respondents	48
4.4. The influence of community awareness on public participation in management of infrastructure projects	49
4.4.1. Community awareness for public participation on management of infrastructure projects	49
4.4.2. Respondents' occupation and attendance	51
4.5. The influence of educational level on public participation in management of infrastructure projects	53
4.6. The influence of community leadership on public participation in management of infrastructure projects	57
4.6.1. Community leaders by sex	57
4.6.2. Qualification for a community leader	58
4.6.3. Availability of community leadership structures	59
4.6.4. Community leadership structures identified	59

REFERENCES 81

APPENDICES

APPENDIX I: Letter of Transmittal 90

APPENDIX II: Questionnaire for Head Teachers and Chiefs 92

APPENDIX III: Questionnaire for Parents, PTA and BOM members 98

APPENDIX IV: Interview Schedule for CFAM and SCEO..... 103

APPENDIX V: Morgan's Table 105

LIST OF FIGURES

PAGE

Fig. 1: Conceptual Framework ů .25

LIST OF TABLES

	PAGE
Table 2.1. Gaps in Literature Review	..28
Table 3.1. Operationalization of Variables	..38
Table 4.1. Sex of Respondents	43
Table 4.2. Age of Respondents	44
Table 4.3. Marital status of the Respondents	45
Table 4.4. Education level of the Respondents	46
Table 4.5. Occupation of the Respondents	.47
Table 4.6. Administrative location of the Respondents	.48
Table 4.7. Respondents' attendance in meetings	..49
Table 4.8. Preferred communication channels for community awareness	.49
Table 4.9. Respondents seeking information on projects established	.51
Table 4.10 Respondents' occupation and attendance	.52
Table 4.11. Educational level of parents	.54
Table 4.12. PTA Members with primary education certificate	.54
Table 4.13. BOM Members with secondary education certificate	.55
Table 4.14. Education level and participation of respondents	..56
Table 4.15. Respondents' training on project management	.56
Table 4.16. Community leaders by sex	...57
Table 4.17. Academic qualification and leadership58
Table 4.18. Established community leadership structures	.59
Table 4.19. Community leadership structures60
Table 4.20. Leadership and academic qualification	...61

ABBREVIATIONS AND ACRONYMS

ADB: African Development Bank

BOM: Board of Management

CDE: County Director of Education

CDF: Constituency Development Fund

CFAM: Constituency Fund Account Manager

DCC: Deputy County Commissioner

GDP: Gross Domestic Product

KCPE: Kenya Certificate of Primary Education

KCSE: Kenya Certificate of Secondary Education

LASDAP: Local Authority Service Delivery Action Plan

MDGs: Millennium Development Goals

MOEST: Ministry of Education Science and Technology

MP: Member of Parliament

NGO: Non Governmental Organization

OECD: Organization for Economic Cooperation and Development

PMC: Project Management Committee

PTA: Parents Teachers Association

SCEO: Sub County Education Officer

SCQASO: Sub County Quality Assurance and Standard Officer

SPSS: Statistical Package for Social Sciences

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations International Children's Emergency Fund

USAID: United States Agency for International Development

ABSTRACT

The purpose of this study was to investigate factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East Sub County, Narok County. The study was guided by the following objectives; to establish the extent to which community awareness influences public participation in management of infrastructure projects, to determine how educational level influences public participation in management of infrastructure projects, to examine how community leadership influences public participation in management of infrastructure projects and to assess the level at which socio-cultural factors influence public participation in management of infrastructure projects in public primary schools in Transmara East Sub County. Arnstein's theory of community participation was used in guiding the study. A comprehensive literature review was conducted and guided the study in answering the research questions. A descriptive study design was used to conduct the study. Reliability test of research instruments was conducted using split- half technique, which gave a Spearman's correlation coefficient of 0.87; indicating strong reliability. A sample size of 283 was used. 281 questionnaires and 2 interview schedules were used to collect data. Only 267 questionnaires were returned and analyzed using descriptive statistics of percentages and frequencies. Analysis of data was conducted using SPSS techniques and descriptive statistics. The findings found out that occupation of community members and the type of communication channels used to create awareness influenced public participation in management of infrastructure projects. Lack of appropriate skills to manage projects was also widespread among PTA/BOM members and this influenced participation and sustainability of projects in schools. The study also noted lack of community leadership structures where the public could ensure accountability of their leaders in processes of managing schools' projects. Low participation and inadequate inclusion of women in leadership positions was found to be a challenge, and this influenced their participation in managing infrastructure projects at community levels. The study also found out that public participation was influenced by social gatherings such as market days and attendance to church services. Age was also noted to influence attendance and participation of community members. The study was significant as it enabled the researcher gain more knowledge on challenges facing public participation in management of infrastructure projects. The findings are also hoped to assist schools' administrators and other education stakeholders appreciate the existence of challenges facing public participation in management of infrastructure projects and possible strategies of addressing them. Based on the study findings, it was recommended that the Government of Kenya should develop socio-cultural friendly policies to promote public participation in management of infrastructure projects in all public primary schools. The study further recommended that the Government should continue with sensitization programmes on the importance of public participation in management of infrastructure projects.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The concept of public participation is not a new aspect of development and management of community projects (Guijt and Shah, 1998). Public participation however, varies from region to region depending on different underlying socioeconomic, cultural and leadership factors. Decision to participate in planning and implementation processes of infrastructure projects at community levels is usually determined and influenced by a number of factors. Studies on public participation in implementation of projects in community and institutional settings have found out that it promotes efficiency, effectiveness and sustainability of such projects. Moreover, involvement by the public in processes of project management was observed by World Bank (2004) to have contributed to projects' success in the Mediterranean.

In a related study conducted in India on management of water resources also observed that public involvement is an important aspect of projects' decentralization because it involves different stakeholders (UNESCO, 2015). Through participation, the public feel recognized and identified with projects' planning, implementation, monitoring and evaluation. However, in Malaysia, it was observed that meaningful and effective public participation is sometimes a delicate political process, which requires serious and wide consultation (Ainul, 2011). Consequently, in reference to Goh (1991), Ainul (2011) further argued that information flow to the public on planning processes of projects is an important aspect necessary towards achieving projects' goals. Globally, participation of the public in management of projects has been viewed to act as a bridge between community members and other stakeholders whose interest and

welfare are vested in such projects. In certain situations, differences arising from projects' participants due to misunderstanding can be easily reconciled by adequately involving local community members. Accordingly, Bell (2001) emphasized that full involvement and participation of the public at all levels of project planning and implementation is not negotiable.

Similarly, while investigating the influence of public involvement in management of Integrated Water Resources in Tanzania, Esther and Ndalaha (2002) found out the importance of community members in projects' management processes. They further observed that one of the main reasons for public participation is to reduce conflicts in projects' management cycles. Moreover, the study showed the need of prioritizing community interests and demand in all processes of planning, implementing and managing projects at community levels. Moreover, according to Gikonyo (2008), community participation is both a process toward an end and an outcome in itself.

In Kenya, public participation is currently a political principle provided for under Article 10(2) (a) of the constitution. It is an important factor in all aspect of project management and sustainability. Generally, the objective behind public participation in any aspect of development is to facilitate the involvement of those who are potentially affected by or interested in making a decision (USAID, 2009). Effective project management practices mainly involve the participation of community members in processes of identification, planning, implementation, monitoring and evaluation. While investigating on the influence of public participation on implementation of projects funded by Constituency Development Fund (CDF) in Kirinyaga County, Mwea constituency, Kenya, low involvement of community members was observed (Nyaguthii and Oyugi, 2013). They further observed that only 8% of respondents agreed to have participated in the implementation processes of projects funded by the CDF in the constituency.

However, factors which may have contributed to this low involvement by the public was not adequately addressed. Similarly, Kerote (2007) agreed with Esther and Ndalahwa (2002) in their findings that community members should be adequately involved in all stages of a project cycle to ensure achievement of projects' goal. Odhiambo (2007) also pointed out that positive development outcome can be derived from infrastructure projects where community participation is sufficiently enhanced. Further, the study found out that such participation should be conducted within an environment where political interference on implementation of projects is minimized.

While conducting a study on women involvement in management of community projects in Narok South Sub County of Narok County, Kenya, Mbogori (2014) observed that many water boreholes sunk were operational due to lack of ownership. The findings further indicated that this ownership gap was brought about by inadequate involvement of women who spent most of their time at these water points. From these findings therefore, it is important to note that there is need to appropriately involve relevant stakeholders in processes of project implementation for sustainability. In Transmara East Sub County for example, there have been reports of low involvement of the public in processes of project identification, implementation and management. This trend has been observed to mostly affect infrastructure projects public schools'. However, factors which may have led to the low participation of the public were not adequately explained in the report (Emurua Dikirr CDF, 2014).

This study sought to investigate factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.

1.2 Statement of the problem

Management of infrastructure projects is a multifaceted activity, which involves contribution and participation of different stakeholders. Efficient and effective implementation of projects is an important component in ensuring their sustainability (Nyaguthii and Oyugi, 2013). Long term sustainability of projects usually results from planned and full participation of the public. Management of projects' risks and uncertainties to manageable levels can be effectively attained when public participation is prioritized (Maina, 2013).

Management of infrastructure projects in many public primary schools in Transmara East Sub County is facing challenges due to inadequate participation by the public (SCEO, 2011). Many projects have stalled and others changed because of lack of knowledge on the importance public participation. Funding withdrawals from ongoing and new projects by sponsors and donors has been widely reported in many schools (SCEO, 2013). While addressing education stakeholders during education prize giving day, the Sub County Quality Assurance and Standard Officer (SCQASO) lamented the frequency of public demonstrations against perceived mismanagement of infrastructure projects, which have temporarily paralyzed learning in some schools (SCEO, 2013). The demonstrations have even scared away potential projects' sponsors from establishing new projects. Low involvement by the public in processes of projects' identification, implementation and management has also been reported in many infrastructure projects (SCEO, 2012). However, factors leading to low public participation in management of these projects have not been adequately investigated (CDF, 2014). Inadequate public participation in management of community water and sanitation projects in Transmara East has also been a major challenge in ensuring their sustainability (World Vision Kenya, 2012).

These challenges would be attributed partly to lack of adequate and accurate knowledge on the factors influencing public participation in management of infrastructure projects in public primary schools.

1.3 Purpose of the Study

The purpose of this study is to investigate factors influencing public participation in the management of infrastructure projects in public primary schools in Transmara East Sub County of Narok County.

1.4 Objectives of the Study

The study was guided by the following research objectives:

1. To establish the extent to which community awareness influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.
2. To determine how educational level of community members influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.
3. To examine how community leadership influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.
4. To assess the level at which socio-cultural factors influence public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.

1.5 Research questions

The study was guided by the following research questions:

1. How does community awareness influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County?
2. To what extent does educational level of community members influences public participation in management of infrastructure project in public primary schools in Transmara East Sub County?
3. How community leadership does influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County?
4. What is the level at which socio-cultural factors influence public participation in management of infrastructure projects in public primary schools in Transmara East Sub County?

1.6 Significance of the Study

The study findings enabled the researcher gain more knowledge on challenges facing implementation and management of infrastructure projects in public primary schools, especially in Transmara East Sub County. Moreover, the findings are also hoped to assist policy makers, school administrators, parents and other education stakeholders understand the existing problem of public participation in the management of these projects. This will enable them come up with ways and means of solving the problem. Similarly, the study recommended possible strategies necessary in reducing gaps in management of infrastructure projects.

It is also hoped that the government will benefit from the study by establishing and strengthening policies on public participation in management of schools' infrastructure projects in addressing

bottlenecks limiting effective management. Such policies may also assist public primary schools administrators in the country and in particular, those in Transmara East Sub County to undertake appropriate measures in promoting public participation in project management. Consequently, the study is hoped to raise awareness among community members and other education promoters so that low public participation in management of infrastructure projects in public primary schools becomes a concern for all.

1.7 Limitations of the Study

Unreliable weather changes and means of transport in the study area limited timely collection of data. Similarly, some unwilling respondents deliberately gave incomplete questionnaires and information. Some respondents however, completely refused to respond to certain questions on marital status and this led to return of some incomplete questionnaires. Some respondents also took time responding to the questions because of their low education level. This led to time wastage in questionnaires administration.

To address these challenges, the researcher administered data collection instruments at appropriate times when weather was favorable. Moreover, the researcher identified and worked with hired motorbike taxis, which accessed the entire study area. Research instruments were adequately reviewed and developed for respondents to easily understand. Their responses were also probed to ascertain that instruments validity was adequate. The researcher also took time explaining to the respondents the importance of their participation in the study. In order to address challenges of illiteracy among the sampled community members, the researcher guided them to adequately respond to the questions developed.

The research was costly. It was expensive to hire motorbike taxis to reach the respondents and also to print questionnaires. To encounter this, the researcher sourced funds from friends and relatives. Finally, the research was affected by heavy rains. In solving this, the researcher purchased 3 pairs of gum boots and rain jackets (for the researcher and the 2 assistants).

1.8 Basic Assumptions of the Study

During data collection exercise, the study assumed all respondents were cooperative and willing to give information honestly and objectively. Moreover, data collection instruments were assumed valid and reliable, hence the study findings. Similarly, the study assumed a sample which was representative of the target population.

1.9 Delimitations of the Study

The study was confined to factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East Sub County of Narok County. The study was conducted within a period of six months. Four independent variables; community awareness, educational level of community members, community leadership and socio-cultural factors were investigated. How these variables influenced participation of the public in management of infrastructure projects in primary schools was also analyzed and presented in the study findings. Moreover, possible influence of moderating and intervening variables on the study variables was analyzed and appropriate control taken, which limited their influence on the findings.

1.10 Definition of Significant Terms as used in the Study

Public participation: Refers to a process in which the public takes part in activities on management of projects.

Infrastructure projects: Refer to buildings in schools which are used by pupils for purposes of learning.

Management: Process of getting activities done efficiently and effectively with/through others.

Community Awareness: Providing information to community members on issues they ought to know.

Educational level: The level at which one reaches in academic ladder by attaining a certificate recognized by the ministry in charge of education in Kenya.

Community leadership: Refers to the guidance provided by individuals or group of individuals to other community members on issues of development and those that influence their daily lives.

Socio-cultural factors: Refer to issues such as sex, religion, marital status, age and other social activities, which influence people's participation while undertaking their daily activities.

1.11 Organization of the Study

This research project report contains five chapters and an appendices section. Chapter one featured the background of the study, the statement of the problem, the purpose of the study and objective of the study. Included also in chapter one are the research questions, significance of the study, limitations of the study as well as the basic assumptions of the study. Besides, delimitations of the study and definition of significant terms as used in the study are also outlined in this chapter.

Chapter two of the study covers the study literature review against the backdrop of the key study variables. It also highlights theoretical framework and the conceptual framework of the study. Gaps identified in the literature reviewed and a summary of the literature is also presented in this

chapter. Chapter three describes research methodology used in the study including the research design, target population, sample size and sampling procedures. Data collection procedures, data analysis techniques and ethical considerations for the study are also presented in this chapter.

Chapter four contains presentation and interpretation of the study findings arising from data analysis. The findings of the study are presented in form of tables with corresponding explanations below each table. Discussion of the findings is also presented in this chapter. Finally, chapter five contains summary of the findings, conclusion and research recommendations. This chapter also outlines suggested areas for further studies arising from the study findings. It is then concluded with a section on contribution of the study to the body of knowledge.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains literature review on the parameters of the study variables. It also features the theory supporting the proposed study area, which forms a foundation of the problem under study. Moreover, it explains the conceptual framework, which explores the relationship between the independent and dependent variables; and how the relationship would influence the results of the study. Finally, the chapter provides a summary of the significant literature reviewed, the findings and how it is relevant to the study.

2.2 Public Participation in Management of Infrastructure Projects

Efficient and effective management of infrastructure projects can be achieved within an environment where all stakeholders are fully and actively involved. Studies on management of projects have argued that public participation is paramount. Accordingly, Maina (2013) observed that management of projects within complex situations requires community involvement at all stages. The study further asserted that when this is conducted proactively, it may limit future problems on projects' ownership and sustainability. In Kenya for example, the rights to involve the public in development activities is enshrined in the Constitution of Kenya 2010 (Mbaabu, 2012). Nikkah and Redzuan (2009) similarly noted that prudent management of infrastructure projects cannot be adequately achieved where participation and public involvement is low. They further found out public participation is an important component for achieving goals of infrastructure projects.

2.3 Influence of Community Awareness on Public Participation in Management of Infrastructure Projects

As a process, public participation requires adequate and elaborate planning towards its effectiveness. Mobilization as an important aspect in realizing public participation can be efficiently achieved within an environment where awareness is created on subject matters. Priority should be given to processes of information flow to the public regarding community activities (Nyamori, 2009). Studies have also shown that inadequate capacity to participate and lack of awareness among community members has hampered their contribution in processes of projects planning. Inappropriate modes of communication used to create public awareness on their participation in management of projects can also lead to management failure. This was noted by Weyama (2013) who found out that low participation by public in management of projects resulted from inappropriate communication channels used to create public awareness. In the study, it was observed that print media and letters were used to invite selected stakeholders for public meetings during projects' identification processes. Illiterate members of the public were never reached in these arrangements. As a result, important ideas to spur projects development were omitted and other potential stakeholders left out. The study further observed that individual differences in the community were not adequately addressed to fully appreciate existence of different social structures, which can influence participation.

In a related study investigating the influence of community participation in successful implementation of CDF funded projects in Mwea constituency, Kenya, public participation was found to be low (Nyaguthii and Oyugi, 2013). They noted reluctance by the public, who reported lack of fully involving them in projects' planning processes. The study further found that there were high levels of ignorance by the public on projects planned for construction because of low

involvement. Accordingly, most of the infrastructure projects in the constituency were mainly identified by either the politicians or the projects' committee members. This practice was observed to have led to misappropriation of public funds and resources. It was also noted that only influential people in the community were fully involved in identification, planning and implementation of these projects. Management and ownership of finished projects was however a challenge.

Processes of implementation and management of infrastructure projects involve rules and regulations, which are essential for their sustainability. It is equally necessary to fully integrate the public in the best practices towards realizing this goal. According to Ochieng and Tubey (2013), inadequate public awareness on these rules and regulations led to low achievement of projects' objectives in Ainamoi constituency of Kericho County, Kenya. The study also confirmed that only committee members and influential local leaders understood rules and regulations on implementation and management of projects. This led to low public involvement and reluctance to participate in processes they feel ignorant about and complex for them to understand. However, reasons for this inadequacy was not fully presented and captured by the objectives of the study. Accordingly, Ngesu, Gunga, Gakuru and Kahigi (2014) observed that planning processes of project management were hampered by inadequate public awareness creation, which later compromised sustainability. They therefore noted the importance of ensuring that the public is fully involved in all stages of creating awareness on projects' implementation. The study recommended the need for making appropriate arrangements towards promoting public participation in project implementation processes by organizing an all inclusive process of public awareness creation.

Similarly, low participation by the public in management of community development projects was noted to be a result of poor planning during processes of creating community awareness (Muriu, 2014). This study also confirmed Nyaguthii and Oyugi (2013) assertion that power to make decisions on such processes is normally taken over by influential local leaders; who sometimes change projects' objectives to suit their interests. In such cases, projects' ownership and management by the community gets compromised. In many cases where processes of identifying community projects is selective, sustainability challenges are widely experienced.

In a study on public involvement in implementation and management of community water projects, the United Nations International Children's Emergency Fund observed the need to fully involve the public in all the processes of implementing the project (UNICEF, 1999). The study further noted that the community can only be fully involved when adequate information on how and when to participate is clearly provided. When endowed with adequate information, community members feel empowered and the sense of projects' ownership increases. Accordingly, the United States Agency for International Development further observed that information is power and that where the public is adequately empowered, participation and control in managing projects improves (USAID, 2009). Accordingly, proper provision of information at initial stages of project identification is important in ensuring that community members participate actively in the process (Omondi and Kamau, 2010). To achieve this, the study noted the need of establishing mechanisms, which promote active participation as opposed to passive participation usually witnessed in implementation of many projects.

It is evident from the literature reviewed that community awareness is an important factor towards ensuring public participation in management of projects. This study assessed the extent

to which community awareness influences participation of the public in management of infrastructure projects.

2.4 Influence of Level of Education on Public Participation in Management of Infrastructure Projects

Implementation and management of projects has been regarded by many people to be preserve for experts and that the general public is viewed as unqualified to address complex and technical decisions on projects management (Folk, 2011). However, according to Barrett, Margaret and Tammo (2007), decision making on projects requires the involvement of all parties in the community. They further observed that educational level reached/attained is not an important factor influencing public participation in projects' implementation. Accordingly, the study further noted that once roles and duties of every community member are outlined, participation is not a challenge. This observation was however not in agreement with that conducted by Nelson (2008) who found that the level of education attained by an individual influences patterns, intensity and extent of participation in public activities. It was further observed that participation increases with education levels attained. However, beyond secondary school levels, such participations were found out to be concentrated on non church- related institutions. Similarly, Sarri and Trihopoulou (2005) in a study on the relationship between education levels and participation among the youth in community development issues found out that those with higher education were more motivated to participate than those with low education.

Management of projects usually relies on efficiency and effectiveness of committees established to achieve its objectives. Successful delivery of projects' goals pivots on the planning and implementation processes. However, competencies of these committees on project management

may influence their performance. Different studies have been conducted to investigate the influence of education levels on management of projects. Low education levels attained by projects' committee members were noted to have led to poor sustainability of projects in Kiambu County, Kenya (Wathome, 2013). The study further noted delayed provision of training programmes to the committee members in equipping them with necessary skills on project management. In some cases, trainings to the members were totally ignored. However, where they were organized, it was observed that some stages in the project cycle were omitted. This was noted to have led to inconsistency in the delivery of objectives at each implementation stage.

While conducting a study on youth participation in community projects in Rivers state, Nigeria, Angba (2009) observed that youth who were more educated participated actively than those with less education. This was also supported by Ovwigho and Ifie (2004) who explored the importance of education in promoting participation of the youth in development at community levels. Accordingly, education attained was also viewed to influence attitude change on participation in community activities among those who possess it (Onweagba, 1990). However, the Organization for Economic Cooperation and Development (OECD) while conducting a conference on education and youth participation in community activities was informed that well educated youth rarely participate in community affairs (OECD, 2004). Specific reasons for such low participation were however not provided.

While investigating on factors influencing management of women projects, Ngesu, Gunga, Gakuru and Kahigi (2014) found out that low education levels attained by members of these groups contributed to poor management. The gap between members with basic education and those with higher education levels was noted to be wide. This hampered coordination and working relationship among group members. Moreover, misunderstanding on how best to

implement and manage these projects was also observed. As a result, sharing of ideas by the members on managing groups' projects was therefore a challenge. To address this challenge, they recommended that training programmes should be organized for all members to equip them with necessary project management skills. However, structures of such training programmes were not adequately spelt out in the study to address the education gap among the group members.

From these findings it is evidenced that education levels attained by the public, especially those with management duties may influence participation in management of infrastructure projects. This study determined how participation by the public in management of infrastructure projects is influenced by their education levels in Transmara East Sub County.

2.5 Influence of Community Leadership on Public Participation in Management of Infrastructure Projects

Effective planning, implementation and management of infrastructure projects are important components of control and ownership of completed projects. Accordingly, Ngesu, and Gunga (2014) noted that in most cases, these processes are normally spearheaded by community leaders who are perceived to control and own development resources in the community. In many cases this practice has led to the development of the popularly called 'sacred cow' projects, which are based on influential people and opinion leaders as opposed to public needs and aspirations (Tabish and Jha, 2012).

According to Rono and Aboud (2003), leaders have always been regarded as change agents. However, in their study, they noted reluctance among community leaders in guiding rural population to actively participate in management of infrastructure projects. Accordingly

Nikkhah and Redzuan (2009) observed that many community leaders do not promote bottom up approach type of participation because of power centralization and the perceived fear of losing power and control.

Community leadership has been regarded as source of information on development issues by the public. However, Muriu (2014) noted that only 10% of community members relied on their leaders as sources of information on development projects compared to about 14.8% who trusted interpersonal contacts for such information. The study further observed that community leadership was challenging in highly populated areas compared to low populated regions. Difficulty in convincing the public to participate in development meetings was also noted. Misuse of information on development programmes meant for the public was similarly found out to be widely practiced by the leaders. Such information was mostly used by the leaders for their interest. Moreover, the public was found to perceive cases of unnecessary use of leadership positions by community leaders or their supporters to change or influence how projects' activities are conducted as poor leadership.

Lack of effective communication and interpersonal skills among community leaders was also found to be a challenge in enhancing public participation in implementation and management of projects (Ngesu, Gunga, Gakuru and Kahigi, 2014). Centralization of power among few local leaders was also noted to discourage necessary participation by the public on projects' management activities. Accordingly, this limited constructive public participation because of most of these leaders fear losing power or influence over people (Omondi and Kamau, 2010).

However, to achieve effective leadership, Tabish and Jha (2012) argued that it is important to involve all public members who support and oppose new projects and their leadership. This will

in effect promote equal involvement of the public in processes of decision making. They further observed that complexity of ideas motivates participation and generation of more new ideas towards projects' sustainability. Such oppositions are normally due to dislike of those in leadership. Zou, Zhang and Wang (2006) further asserted that constructive criticism on ideas further promotes openness in projects' management. Similarly, inadequate proactive institutions to promote public participation in many areas have slowed down communities' progress in management of infrastructure projects (ADB, 2001). This was also found to limit forums where stakeholders' diversity can be adequately tapped towards achieving projects' management goals. In support of this assertion, Omondi and Kamau (2010) noted the need to establish appropriate infrastructures where community leaders can be held accountable on their roles.

Community leadership was also found as an important factor influencing management of community development projects (Gakuru, Gunga, Ngesu and Kahigi, 2014). In particular, community leaders were observed to influence public participation during processes of implementing and managing of projects. The nature of such influence was however not adequately spelt out. Similarly, Mwangi (2005) noted that appointment of local project leaders was not always conducted as per laid down procedures.

In a study on implementation and management of Local Authority Service Delivery Action Plan (LASDAP) projects, domination by local influential leadership on the processes prevented meaningful public participation (Muriu, 2014). This led to decreased levels of public participation as the processes of project implementation progressed from the stage of needs identification to that of management. Independent public contribution expected on these processes was found to have very little effect because over involvement by community elites overshadowed public needs and expectations on projects' priority. It was further noted that in

most cases, projects preferred by these leaders were prioritized for implementation irrespective of public outcry. Findings from this study showed that ineffective leadership at the community can influence public participation in implementing and managing projects.

Establishment of appropriate leadership structures in guiding participation by all community leaders in the management of projects is equally necessary (Omondi and Kamau, 2010). Accordingly, Nyaguthii and Oyugi (2013) assert that all community members and not only the leaders need to be actively involved in processes of project management. They further noted that such inclusion should be conducted irrespective of social status attached to any member of the public. Reluctance by community leaders to timely engage government agencies, which have expertise in processes of project management, was observed to influence active public participation on the same (ADB, 2010). The report however did not explore possible reasons for such reluctance. Accordingly Nikkhah and Redzuan (2009) observation confirms that of Gakuru, Gunga, Ngesu and Kahigi (2014) that centralization of power in few community leaders limits active public participation in management of projects.

2.6 Influence of Socio-Cultural Factors on Public Participation in Management of Infrastructure Projects

Participation by the public in management of infrastructure projects has been viewed by different researchers as key to projects' sustainability. Control and directives on decision made during project cycle mainly demonstrate nature of participation by different stakeholders in the community. Integrating gender issues in participatory processes of project management is an important factor in promoting inclusivity (ADB, 2010). In Indonesia, the study further observed widespread exclusion of women in community development programmes; a practice which is

traditionally accepted. Decision making on issues touching their interests is usually at the mercy of their male counterparts.

A study in rural Kerala, India noted the deliberate government legislative provisions put in place to specifically uplift the womenfolk towards participating in the management of water community projects (Owino, 2011). This was mainly to promote confidence levels, leadership potentials and decision making processes among women in rural areas; where management of water projects were predominantly in the hands of the male gender due to local cultural practices and beliefs on leadership. The study further observed the need for more legislation to redirect focus on water management to social implications as opposed to technical infrastructure implications.

While investigating factors influencing management of women income generating projects in Kiambu County, Kenya, Gakuru, Gunga, Ngesu and Kahigi (2014) observed that women's participation in community development is constrained by the many domestic roles they undertake. Challenges to their participation and contribution in management of infrastructure projects were further noted to be influenced by social norms in the community. This study hopes to investigate possible factors which may contribute to the laxity among community members to continuously participate at all levels of project cycle. In Kenya, Muriu (2014) also observed low participation of females in Local Authority Service Delivery Action Plan (LASDAP) programmes at only 54% compared to that of their male counterparts at 57.4%. The males were further noted to have participated actively in processes of projects' implementation and management. However, according to Ngunjiri (2010), women have managed to multitask and become community leaders through election in national and regional governments.

In rural Indonesia, older people; mainly men were observed and regarded as the ultimate decision makers on development programmes (Yuerlia, 2004). Youth and older women were mostly left out in processes of decision making and their participation was equally noted to be low. However, such low participations were not adequately explained by the study. As a result, the study noted poor projects sustainability, which was partly attributed to inadequate involvement of all projects' stakeholders in the community. In Mali, a study investigating determinants of community participation similarly observed the need to fully involve all community social actors in processes of project management (Brett, Margaret and Tammo, 2007). This was further noted to promote social inclusion in management of community projects.

Gender inequality has also been widely noted as a major obstacle towards meeting development targets globally (UNDP, 2009). Active involvement of women in management of infrastructure projects has equally been recorded to be very low in many parts of Asia and Sub Saharan Africa. In Denmark, deliberate government policies designed to promote family friendly activities during public participation in development promoted women involvement (D' Agostino and Levine, 2011). The policies were noted to enable women participate in activities previously considered dominated by men. Accordingly, in related study by Maria and Levine (2011), it was noted that social stability and progression in modern societies can be effectively achieved through full representation of minority population to participate in development programmes.

A study on the Maasai community in Kenya and Tanzania, observed that women are regarded as weaker sex and that they are required to submit to the leadership of men (Kipuri and Ridgewell, 2008). The study further noted low participation among women in development forums, partly attributed to this socio-cultural profiling. This was also noted by Cornell (2001) and Hodgson (2000) that women play secondary societal role and are excluded from community decision

making processes on management of projects. Public participation has also been viewed by different researchers to be influenced by age of participants.

According to Wanyoike (2014), age had an impact on how individuals approach their environment and activities in a given social setting. Young people were observed to be aggressive and impatient during their participation in public forums on processes of implementation and management of projects. Wanyoike (2014) further noted marital status and friends of young people to influence their participation in such projects. However, the extent of influence was not adequately explained by the study. Similarly, women were found to rarely participate in community development issues as compared to men. They were observed to be more involved in family ties and domestic chores as opposed to community development issues (Wanyoike, 2014).

In rural India, UNESCO (2015) also observed that management of community water projects was closely monitored through strong historical beliefs and practices, as this ensured effective achievement of projects' goals. Local farmers were trusted with management of irrigation water schemes in regions considered historical to the community. Inadequate strategies by relevant institutions to address socio-cultural perceptions towards ensuring women inclusion in public participation on development projects are still widespread globally (World Bank Report, 2009).

2.7 Theoretical Framework of the Study

The study was guided by principles of Arnstein's theory of community participation developed in 1969. This theory proposed a ladder of participation in undertaking community activities. According to Arnstein's theory, activities in any community setting are influenced by different

factors; including group leadership, participants' attitude to a project, center of power, and issues of processes and capacity in conducting a given activity.

In relation to this study, the important section of the theory is its recognition of different levels of participation, which includes manipulation of community, consultation and the real participation.

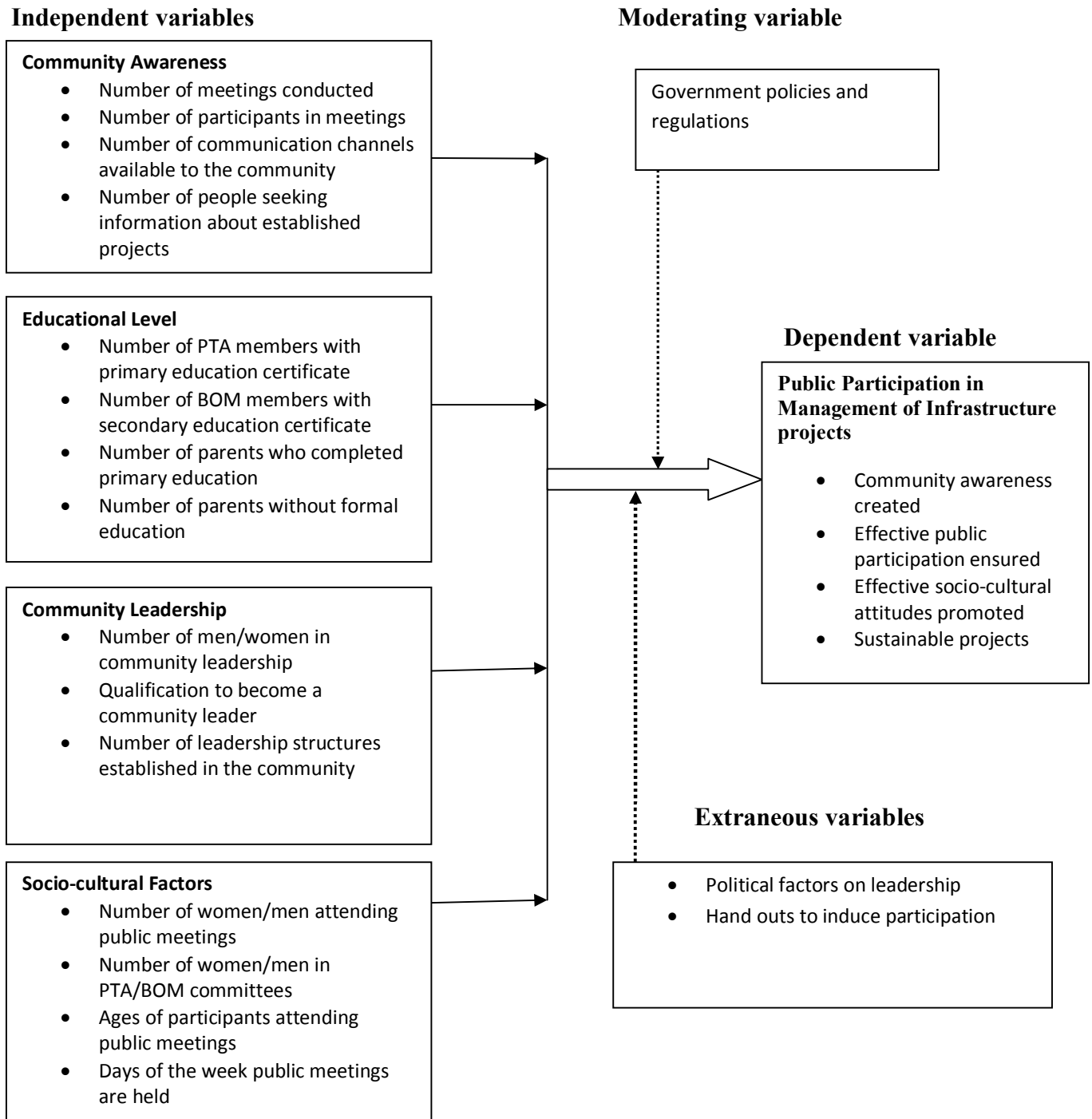
At these levels, Arnstein's refers to it as that where partnership and community control exists.

The strength of this theory is that it promotes community participation in terms of empowering them to actively participate in decision making while implementing and managing processes of projects' activities. It further emphasizes the need to understand participation as empowering community members as individuals and group of individuals.

However, this theory has been criticized for its approach to community participation in terms of steps, where each step represents broad category of issues. By this approach, processes of informing community members at every level could lead to significant differences in terms of type and quality of information being conveyed. As a result, this could lead to projects' planning inefficiency. The use of a ladder in the theory implies that more control is always better than less control at each level. However, the public may not always desire for increased control to participate. This sometimes can lead to project failure if not adequately managed through elaborate community participation.

Despite its weakness, the researcher used this theory in investigating factors influencing public participation in management of infrastructure projects in public primary schools in the Sub County of Transmara East. This is because it provides the base on which factors influencing public participation in given activities rest upon. Application of this theory also enabled the researcher to investigate the study variables by assessing their relationships towards answering the research questions.

2.8 Conceptual Framework



The study had four independent variables; namely community awareness, education level, community leadership and socio-cultural factors. The dependent variable was public

participation in management of infrastructure projects. The conceptual framework above presents relationships between independent and dependent variables of the study. The purpose of this study was to investigate factors influencing public participation in management of infrastructure projects in public primary schools in the Sub County of Transmara East.

A number of factors were hypothesized to influence community awareness to participate in management of infrastructure projects in public primary schools in Transmara East. The number of public meetings conducted, number of participants and the number of communication channels available to the community during such processes are important. Studies have shown that inadequate community mobilization procedures can influence public participation. Moreover, training programmes organized to create awareness to the public on implementation of infrastructure projects is necessary. Similarly, participation of the public during the entire process of mobilization is equally important ensuring that all potential participants are timely reached. The influence of community awareness on public participation on management of infrastructure projects in public primary schools in Transmara East was investigated based on these factors.

Similarly, the researcher has identified education level of community members to influence management of infrastructure projects in public primary schools in the study area. It is also hypothesized to be influenced by various factors.

The level of education reached/attained by community members; especially parents may influence how they participate and contribute ideas in training programmes. Education levels attained by different categories of public members may enable the researcher to investigate whether it influences their participation in management of infrastructure projects in primary

schools. It may also guide in assessing whether PTA and BOM members of these schools are appropriately elected to serve in their positions.

The researcher noted community leadership to influence public participation in management of infrastructure projects in public primary schools in Transmara East. In order to further examine the extent of its influence, the researcher identified the number of men and women in community leadership and qualifications of becoming a community leader. The study will further try to establish if there are leadership structures in the community, which may influence management of infrastructure projects. Through examining how politics may influence projects' management, the researcher may find out possible effects it has on projects in public primary schools of Transmara East Sub County.

Socio-cultural issues in the community also influenced public participation in the management of infrastructure projects in primary schools. The number of women and men attending public meetings and those in PTA/BOM committees was assessed. Similarly, ages of participants attending public meetings and the days of the week on which these meetings are held were also established to find out frequencies of attendance to the meetings. Public sensitization should be planned to accommodate all members based on appropriate days and timings; when they are available.

The relationship between independent variables and the dependent variable was also examined in the study. The assessment of these relationships enabled the researcher to answer the research questions. It also enabled the researcher to achieve the study objectives, which led to the study findings.

2.9 Gaps in Literature Review

Management of infrastructure projects has been studied by many researchers globally. Many researchers have focused their interest in this field because of the huge resources which government agencies, private institutions and other education stakeholders have been allocating to address challenges of project management. Literature reviewed in this study showed varied challenges on related variables and their influence on project management cycle as summarized in the table below:

Table 2.1: Gaps in Literature Review

Specific variable	Specific source of literature	Study Findings	Knowledge gap to be investigated
Community awareness	Nyamori, O.R. (2009). 'Making Development Accountable: A critical analysis of the systems of accounting and accountability for the Constituency Development Fund in Kenya', <i>Journal of Accounting and Organizational Change</i> 5(2): 197 - 227.	Priority should be given to processes of information flow to the public regarding community activities.	To establish why priority is not given to information flow to promote public participation in management of infrastructure projects in Transmara East.
Educational level	Folk, E., (2011). Public participation in the superfund cleanup process. <i>Ecology Law Quarterly</i> 18, 173~221.	Public members with inadequate education cannot address complex and technical decisions on project management.	This study will try to establish the extent to which education level influences public participation in project management in Transmara East.
	Brett A. G., Margaret M. Kroma and Tammo S (2007). Analysis of a Community participation in rural water	Education level of individual members	To examine the extent at which different

	supply project in three communities in Mali: Participation and sustainability. Natural Resources Forum 31 (2007) 142-150.	of the community is not a priority in public participation.	levels of education influence management of infrastructure projects in Transmara East.
Community leadership	Tabish, S., and Jha, K. (2012): Success Traits for a Construction Project. Journal of Construction Engineering and Management, Vol. 138 (10), 1131-1138.	Projects established based on influential leaders and not according to public needs and aspirations.	To examine possible reasons why community leaders command control over public participation in processes of project management in Transmara East.
	Mwangi, S.K (2005) Efficiency and Efficacy of Kenya's Constituency Development Fund: Theory and Evidence. Working Paper Number 2005 - 42, Department of Economics, University of Connecticut. Available on website: http://www.econ.uconn.edu/working/2005-42.pdf	Appointment of community leaders not conducted as per the laid down regulations.	To assess the extent at which violation of appointing community leaders influence public participation in management of infrastructure projects in Transmara East.
Socio-cultural factors	Wanyoike, C., Wanja (2014): Factors Influencing Participation of Youth in Community Based Youth Projects in Nyeri County, Kenya. A Research Project Report Submitted in Partial Fulfillment of the Requirements for the Award of Master of Arts Degree in Project Planning and Management, University Of Nairobi.	Youth's participation in management of community projects is influenced by age, friends and marital status.	To assess the extent at which age, friends and marital status influence public participation in management of infrastructure projects in Transmara East.
	D'Agostino M.J, Levine H ((2011): Women in Public Administration: Theory and Practice. Jones and Barlett Learning,	Deliberate government policies	To establish the applicability of

	Tall Pine Drive, USA.	designed to promote family friendly activities encouraged women participation in processes of projects management in Denmark.	government policies in place to promote women participation in management of infrastructure projects in Transmara East.
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2.10 Summary of Literature Review

Literature reviewed in this section showed that community awareness influenced participation in processes of implementing and to some extent; management of development projects. Educational levels attained/ reached among community members were also identified to influence participation of the community in projects management (Folk 2011). The study further observed that public members with inadequate education cannot address complex and technical decisions on project management.

This study was however challenged by Brett, Margaret, Kroma and Tammo (2007) who found that education level of an individual is not a priority to participate in development projects. While investigating accountability in the use CDF in Kenya, Nyamori (2009) observed that priority should be given to processes of information flow to the public regarding planning, implementation and management of community projects.

Similarly, Tabish and Jha (2012), observed that establishment of some infrastructure projects were influenced by community leaders. Accordingly, their findings were supported by Ngesu Gunga, Gakuru and Kahigi (2014) who noted the influence of community leaders in projects

implementation processes. The leaders were seen to own and control development resources for the establishment of projects. The influence of socio-cultural factors was also noted to limit youth participation in management of integrated water projects in Tanzania (Dungumaro and Madulu, 2011). Similarly, Owino (2011) noted specific policy initiatives by the Indian government to uplift women towards participating in the management of community projects in rural areas of Kerala.

However, most of the studies reviewed did not adequately capture the extent to which public awareness, educational level, community leadership and socio-cultural factors influenced management of infrastructure projects. The reviewed literatures however confirmed low participation of women in the management of various infrastructure projects globally. From these literatures, initiatives to achieve efficiency and effectiveness in implementing and managing infrastructure projects are necessary.

Similarly, studies on factors influencing public participation in management of infrastructure projects in Transmara East have not been adequate. It is therefore hoped that findings of this study and recommendations made to address them will enable education stakeholders and other policy makers in developing appropriate tools for the management of infrastructure projects in the Sub County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research design, target population, sample size and sample selection procedure. It also captures data collection instruments together with instruments pretesting, instruments validity and instruments reliability. The chapter also presents procedure of data collection, techniques of data collection, operational definition of variables and methods of data analysis. In the last section of this chapter, ethical considerations that the researcher will undertake before, during and after conducting the study are presented.

3.2 Research Design

The study was conducted using descriptive study design by employing both quantitative and qualitative approaches. This method was chosen because it is hoped to enable the researcher explore the variables under investigation in order to achieve in depth analysis of factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East. Accordingly Gujenda (1981) noted that descriptive study of variables depicts the present of a given situation, which enable the researcher to go beyond mere collection and tabulation of data. Description study also involves comparison and relationships of variables, which is ideal in making interpretation of meanings and significance of what the researcher intends to investigate.

Similarly, according to Mugenda and Mugenda (2003), the study fits within the descriptive design because it is one of the best methods available to social scientists interested in collecting original data purposely to describe a population; which is too large to be observed directly.

The design chosen for the study enabled the researcher to collect data from a wide range of respondents. These included head teachers, parents, PTA and BOM members, education officers, chiefs, CFAM and the NGO officer.

3.3 Target Population

The study targeted all the 60 head teachers from public primary schools in the Sub County, who are designated secretaries of the schools' committees and 120 chairmen of PTA and BOM in these schools. These schools are within four educational zones hence 4 zonal education officers were targeted for the study. The study also targeted 5 parents from each school (300 parents), who are community members and have interest in all the infrastructure projects in these schools. Similarly, all the local administrative officers (chiefs) from the six locations in the Sub County were targeted. The Sub County Education Officer (SCEO), the Constituency Fund Account Manager (CFAM) and 1 officer from a local Non Governmental Organization (NGO) were also targeted by the study.

3.4 Sample Size and Sample Selection

This section contains the sample size and sample selection procedures the researcher used to conduct the study.

3.4.1 Sample Size

A sample size of 283 respondents was studied. This included 60 head teachers, 90 parents, 4 zonal education officers, the SCEO and the 6 chiefs. Further, 120 chairpersons of PTA and BOM were purposively sampled and studied. Lastly, 1 officer from a local NGO and the CFAM were similarly studied.

3.4.2 Sample Selection

The sample size for parents was arrived at using the Mugenda and Mugenda (2003) criterion of 30% of the target population. Since it was not possible to sample the head teachers, the researcher included all the 60 head teachers in the study. The researcher also studied all the 120 chairpersons of PTA and BOM from these public schools (2 persons from each school). Moreover, all the 4 zonal educational officers and the 6 chiefs in the target population made up the study sample. Similarly the SCEO, the CFAM, and 1 officer from local NGO were also in the study sample.

Parents and chiefs were purposively sampled for the study. Under guidance of the head teachers, the researcher applied simple random sampling method to identify the 90 parents using their children's names from school registers. Stratified sampling method was used to ensure that the 90 parents sampled are fairly selected from the 4 administrative education zones in the Sub County.

3.5 Data Collection Instruments

Data for the study were collected using questionnaires, interview schedules and focus group discussions. Questionnaires were the main tools used for data collection. They were more

objective since they gather responses in a standardized way, while at the same time ensuring confidentiality (Kothari, 2007). The questionnaires will be given to all the 60 head teachers, the 120 PTA/BOM members, 90 parents, 6 chiefs, 4 zonal education officers, and 1 officer from a local NGO's office. Interview schedules were used to collect data from the CFAM and the SCEO. The use of interview schedules provided qualitative data reflecting actual feelings of respondents targeted in the study.

3.5.1 Piloting of the Instruments

Piloting of the data collection instruments was conducted. A pre-test sample of 28 respondents, representing 10% of the total sample size was used to conduct the pilot study (Mugenda and Mugenda 2003). The respondents were selected through a simple random sampling technique. This was hoped to identify any ambiguity in the questions and establish if data analysis methods used were appropriate. Pre-testing of the instruments was completed within 10 days and then necessary changes were made to achieve instruments' effectiveness.

3.5.2 Validity of the Instruments

The researcher ensured that data collection instruments are developed to measure what they were intended to measure. This was achieved by ensuring that the instruments were developed to adequately cover all the study objectives. Moreover, the researcher sought expert judgment from the supervisor. This enabled the researcher to ensure that data collection instruments are valid. Peer review was also adopted and carried out. This was mainly achieved when the researcher occasionally sought for guidance from academic colleagues and friends on the validity of data collection instruments used.

3.5.3 Reliability of the Instruments

Reliability refers to the degree to which a particular measuring procedure gives similar results over a number of repeated trials (Orodho, 2005). The researcher used split-half method to ascertain reliability of the data collection instruments. Questions in the questionnaire were divided into two parts; all odd numbered questions grouped together and even numbered questions also grouped together. Odd numbered questions were asked first followed by even numbered questions. The totals score for each half was then computed and the two results compared using coefficient of correlation.

A Spearman's correlation coefficient of reliability was then calculated using the split-half method and a value of 0.87 was obtained. As a result, the data collection instrument indicated strong reliability; hence ideal. Instruments and data are reliable if there is a high co-efficient of reliability between a range of zero to one (Mugenda and Mugenda, 2003).

3.6 Procedures of Data Collection

A letter of introduction was obtained from the University of Nairobi. This letter was then used to obtain a research permit. Permission was then sought from all the relevant authorities prior to the commencement of the study. This facilitated the process of data collection. A letter accompanying the research instruments assured respondents of confidentiality attached to all information they gave regarding the study. This encouraged them to actively participate in the study.

The supervisor provided necessary guidance on the procedure to follow in collection of data towards answering the research questions. The researcher visited all the 60 public schools to administer questionnaires to the head teachers. The response was encouraging. Other

respondents were also visited and questionnaires appropriately administered. The questionnaires were later collected after 5 days. Interview schedules were also administered to the CFAM and the SCEO. The researcher waited for about 30 minutes for the officers to fill the schedules and collect them back.

3.7 Techniques for Data Collection

This refers to steps and sequences of collecting data from the respondents. The researcher prepared a cover letter, attached to each questionnaire indicating the purpose of the study. The researcher also disclosed to the targeted respondents commitment to uphold confidentiality with the data collected. Similarly, the researcher self-administered the questionnaires with the assistance of two research assistants using drop and pick method. Administration and management of the 2 interview schedules was conducted by the researcher.

3.8 Operational Definition of Variables

Table 3.1: Operationalization of Variables

Objective	Variable	Indicators	Measure	Scale of measure	Data collection method	Type of Analysis
To establish the extent to which community awareness influences public participation in management of infrastructure projects.	Independent variable Community awareness	Number of public meetings conducted.	Reports developed	Ordinal	Questionnaire Interview schedule	Descriptive statistics
		Number of people attending public meetings.	List of attendance	Ordinal		
		Number of communication channels available.	Reports developed	Ordinal		
To determine how educational level of community members influences public participation in management of infrastructure projects.	Independent variable Educational level	Number of PTA members with primary education.	KCPE Certificates Committee records	Ordinal	Questionnaire Interview schedule	Descriptive statistics
		Number of BOM members with secondary education.	KCSE Certificates Committee records	Ordinal		
		Number of parents who completed primary education.	KCPE Certificates	Ordinal		
		Number of parents without formal education.	List of names	Ordinal		

<p>To assess the level at which community leadership influences public participation in management of infrastructure projects.</p>	<p>Independent variable</p> <p>Community leadership</p>	<p>Number of men/women in community leadership.</p> <p>Qualifications to become a community leader.</p> <p>Number of leadership structures in the community</p>	<p>List of names</p> <p>Reports developed</p> <p>Reports developed</p> <p>Identification documents</p> <p>Reports developed</p>	<p>Nominal</p> <p>Ordinal</p>	<p>Questionnaire</p> <p>Interview schedule</p>	<p>Descriptive statistics</p>
<p>To examine how socio-cultural factors influence public participation in management of infrastructure projects.</p>	<p>Independent variable</p> <p>Socio-cultural factors</p>	<p>Number of men/women attending public meetings.</p> <p>Number of men/women in PTA/BOM committees.</p> <p>Ages of participants in public meetings.</p> <p>Days of the week public meetings are held.</p>	<p>List of attendance</p> <p>Committee records</p> <p>Reports developed</p> <p>Reports developed</p> <p>Identification documents</p> <p>Reports developed</p>	<p>Nominal</p> <p>Ordinal</p> <p>Nominal</p> <p>Ordinal</p>	<p>Questionnaire</p> <p>Interview schedule</p>	<p>Descriptive statistics</p>

<p>To investigate Factors Influencing Public participation in management of infrastructure projects in Public Primary Schools; A case of Transmara East Sub County, Narok County, Kenya.</p>	<p>Dependent variable Management of infrastructure projects in public primary schools.</p>	<p>Number of sustainable infrastructure projects.</p> <p>Number of community awareness meetings conducted.</p> <p>Number of public members participated in management of projects.</p> <p>Number of PTA/BOM members with primary/secondary education.</p> <p>Number of leadership structures in the community.</p>	<p>Reports developed</p>	<p>Interval Ordinal</p>	<p>Questionnaire Observation Interview schedule.</p>	<p>Descriptive statistics</p>
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3.9 Methods of Data Analysis

Upon completion of data collection, data was arranged and grouped according to the four research questions. Analysis of study variables to answer research questions was conducted using descriptive statistics of frequency tables and percentages. Quantitative data was also analyzed using a Statistical Package for Social Sciences (SPSS). The SPSS package was used

because it is effective in handling large amount of data for analysis. It also enabled the researcher to relate the analyzed data to the research questions.

3.10 Ethical Consideration

These are issues that pertain to the behavior of the researcher, research assistant(s) and the targeted respondents, which can influence the effectiveness of research findings. The researcher ensured that legally accepted behaviors are observed throughout the study process.

The researcher also ensured that plagiarism and data fraud were not tolerated before, during and after data collection process. To achieve this, the researcher and the assistants thoroughly read and understood the consequences of breaking such laws. The researcher also ensured that privileges accorded to conduct the study were not abused. The purpose of the study and data collection procedures was also explained to the respondents and this enabled them participate willingly. Information received from respondents was managed with utmost confidentiality.

Similarly, the researcher ensured that respondents who felt that their identity should not be revealed for given reasons were appropriately protected. Throughout the study, the researcher ensured that no physical and psychological harm was caused on any respondent. Data collection was only conducted from respondents who voluntarily agree through informed consent to do so. There were only 10 respondents with special needs and the researcher ensured that their consent to provide information was properly managed.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1. Introduction

This chapter contains data analysis, presentation, interpretation and discussion based on the key study variables. It further shows the influence of community awareness, educational level, community leadership and socio-cultural factors on public participation in management of infrastructure projects in public primary schools in Transmara East Sub County, Narok County, Kenya.

4.2. Questionnaire Return Rate

The researcher issued 281 copies of questionnaire to 60 head teachers, 90 parents, 120 PTA/BOM members, 6 chiefs, 4 zonal education officers and 1 NGO officer. Only 267 copies of questionnaire were returned, representing 95%. Response rate refers to the number of subjects that respond to a research instrument. A response rate of 50% is adequate for analysis and reporting, a response rate of 60% is good and a response rate of 70% and above is very good (Mugenda and Mugenda, 2003). This study therefore returned an excellent questionnaire response rate.

4.3. Demographic Characteristics of Respondents

The demographic characteristics of the respondents considered in the study were age, marital status, level of education and sex, which were sought to investigate factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.

4.3.1 Sex of Respondents

Sex of respondents was considered an important factor because it may determine how public members participate in meetings. To ascertain its influence, respondents were asked to indicate their sex and the findings were given in table 4.1.

Table 4.1: Sex of Respondents

Sex of Respondents	Frequency	Percentage
Male	193	72.3
Female	74	27.7
Total	267	100

From the table, 193(72.3%) of the respondents were male while only 74(27.7%) were females. The higher percentage of males implied that they were more ready and available to participate in the study than the females.

4.3.2 Age of Respondents

Public participation in management of infrastructure projects in Transmara East has been a challenge. In particular, youth's participation has been inconsistent. The researcher therefore analyzed age category of the respondents and the response was tabulated in the following table.

Table 4.2: Age of Respondents

Age of Respondents in Years		
Category	Frequency	Percentage
18 - 25	42	15.7
26 - 33	65	24.3
34 - 41	63	24
42 - 49	79	29.6
50 and above	18	6.7
Total	267	100

The findings showed that majority of the respondents 79(29.6%) were between the age 42-49, 18 (6.7 %) were of age 50 and above years old, 42(15.7 %) were of the age 18-25 years, 65(24.3 %) of the age 26-33 years and those of the ages 34-41 were 63(24.0%). Majority of the respondents were within the age of 42-49 years, implying that they were available and ready to participate in education issues and this influenced their participation in management of infrastructure projects in primary schools in Transmara East. The low percentage of the respondents age 50 and above years may influence active participants since this age comprises community members who may have experience in management of infrastructure projects.

4.3.3 Marital Status of the Respondents

Respondents were asked to indicate their marital status and the result was given in table 4.3.

Table 4.3: Marital Status of Respondents

Marital status	Frequency	Percentage
Married	169	63.3
Single	56	21
Widowed	25	9.4
Divorced	17	6.4
Total	267	100

The findings from table 4.3 indicated that 169(63.3%) of the respondents were married, 17(6.4%) indicated they were divorced, 25(9.4%) were widowed while 56(21%) indicated that they were single. This implied that majority of the respondents were married and may have interest in participating in the management of infrastructure projects in public primary schools in Transmara East Sub County.

4.3.4 Level of education attained

Education is an importance factor in every community development. Respondents were required to provide their level of education. According to the findings, 1(0.4%) of the respondent has attained master degree 5(1.9%) had bachelor's degree and the table further shows that 37(13.8%) had attained Diploma. Those who had attained college certificate were 66(24.7%) while the percentages of those with O:level certificate was 76(28.5%) as illustrated in table 4.4. Percentage of those attained primary certificate was also found to be 82(30.7%).

Table 4.4: Education Level of Respondents

Level of education	Frequency	Percentage
Master	1	0.4
Bachelor	5	1.9
Diploma	37	13.8
Certificate	66	24.7
O' level	76	28.5
Primary	82	30.7
Total	267	100

4.3.5 Occupation of the Respondents

Occupation of the public is an important determinant, which may influence their availability to participate in development programmes. In determining the influence of occupation of the respondents on how they participate in management of infrastructure projects in public primary schools in Transmara East Sub County, the respondents were asked to indicate their occupation and the result was tabulated in table 4.5.

Table 4.5: Occupation of the Respondents

Occupation	Frequency	Percentage
Education office	4	1.5
Teaching	60	22.5
Administration officer(chief)	6	2.2
Community development officer(NGO officer)	1	0.4
Farmers (subsistence)	138	51.7
Others	58	21.7
Total	267	100

The occupation of the respondents is as shown in table 4.5. The findings showed that 4(1.5%) of the interviewed respondents are Education officers, teachers were 60(22.5%) and Administration officers were at 6(2.2%) while Community development officers were at 1(0.4%). Farmers represented 138(51.7%) and the remaining 58(21.7%) of the respondents were involved in other occupations different from the above mentioned. This show that majority of those interviewed were stakeholders in the education sector hence reliability of the information provided. From the total number of respondents, 183(68.5%) actively worked with education sector and 84(31.5%) have not been actively involved in educational development issues. Similarly, only 31(11.7%) of the respondents said that they have been involved in their current occupation for less than a year, 40(15%) had 1-3 years involvement in the same occupation, 114(42.5%) had 3-6 years and 82(30.8%) had over 6 years undertaking the same occupation.

4.3.6. Administrative Location of the Respondents

Respondents were asked to indicate their administrative locations and the findings is as given in table 4.6

Table 4.6: Administrative Location of the Respondents

Location	Frequency	Percentage
Murkan	61	23
Emurua Dikirr	55	20.6
Mogor	34	12.7
Ololmasani	44	16.5
Njipiship	38	14.2
Kapsasian	35	13.1
Total	267	100

From the table, the findings indicate majority of respondents 61(23%) were from Murkan location, 35(13.1%) from Kapsasian, 55(20.6%) from Emurua Dikirr, 34(12.7%) from Mogor location while 44(16.5%) are from Ololmasani location and 38(14.2%) respondents were from Njipiship location.

The findings in table 4.6 above implied that majority of the respondents were from Murkan location who were available and ready to participate in the study.

4.4. The Influence of Community Awareness on Public Awareness on Public Participation in Management of infrastructure Project in Public Primary School in Transmara East Sub County

This section presents findings in relation to objective 1 which sought to establish the extent to which community awareness influences public participating in management of infrastructure projects in public primary schools in Transmara East Sub-county.

4.4.1. Community Awareness for Public Participation on Management of Infrastructure Projects.

The respondents were asked whether they have attended meetings on management of projects. The findings were as in the table 4.7 below

Table 4.7: Respondents' Attendance in Meetings

Attended Meeting	Frequency	Percentage
Yes	173	64.8
No	94	35.2
Total	267	100

The findings indicated that 173(64.8%) have attended meetings, 94(35.2%) have not attended meetings on management of infrastructure projects. This implies that attendance of meetings on projects was more than half of all respondents. This implies that majority of the respondents have attended meetings on project management.

The respondents were also asked to mention number of communication channels preferred by the public for creating community awareness and the result is presented in table 4.8

Table 4.8: Preferred Communication Channels for Community Awareness

Preferred Communication Channels	Frequency	Percentage
Radio	94	35.2
Posters	21	7.9
Faith Based Institution	46	17.2
Friends	28	10.5
Pupils	78	29.2
Total	267	100

Effective community awareness can be achieved with reliable communication channel. From table 4.8, the findings indicate that posters are least preferred at 21(7.9%), radio is most preferred at 94(35.2%), pupils at 78(29.2%), churches at 46(17.2%) and friends at 28(10.5%). The findings imply that awareness on project management issues are more preferred to be channeled through radio. This may further show that information from radios and schools are considered reliable since they are regulated and this can influence public participation on management of infrastructure projects. Posters are least preferred and this may imply that many people are illiterate.

Similarly, respondents were also asked to indicate whether they seek information on established infrastructure projects after becoming aware on issues of project management and the findings are shown in table 4.9.

Table 4.9: Respondents Seeking Information on Projects Established

Respondents Seeking Information on Established Projects	Frequency	Percentage
Yes	75	28.1
No	192	71.9
Total	267	100

The findings indicated that 192(71.9%) did not seek information on projects established and 75 (28.1%) seek information on projects established. This implies that although attendance to public meetings on project management was high at 173(64.8%) as was indicated in table 4.7, only 75(28.1%) were interested to find out whether infrastructure projects planned were established.

4.4.2. Respondents' Occupation and Attendance

Attendance and participation by the public in meetings can also be influenced by people's occupation. In determining the influence of occupation on public participation in meetings on management on infrastructure projects, the respondents were asked whether their daily activities influence their attendance and the findings were tabulated in table 4.10

Table 4.10: Respondents' Occupation and Attendance.

Occupation	Attendance		Total
	Yes	No	
Education officer	3	1	4
Teacher	33	27	60
Administrative officer(chief)	1	5	6
Community Development Officer	0	1	1
Farmer	88	50	138
Others	41	17	58
Total	154	113	267
Percentage (total)	57.7	42.3	100

The findings indicate that 3 education officers out of the 4 officers interviewed said their occupation influenced attendance of meetings, 88 farmers out 138 admitted that their attendance to meetings is influence by the occupation they are in, 33 head teachers also responded that attending meetings is significantly influenced by their occupation of teaching, only 1 chief responded that occupation influences his attendance of meetings, 1 community development officer said his occupation does not influence his attendance to meetings whereas 41 others public members responded that they are influenced by their occupation to attend meetings on infrastructure projects management. The findings implied that farmers who are the majority of respondents in the study had their attendance to public meetings on infrastructure projects

management influenced by their occupation. Further it showed that only chiefs and NGO officer responded that their occupation did not influence their participation in meetings on management of infrastructure projects. This implies that chiefs and the NGO officer usually participate in organizing most of community awareness and development initiatives hence their regular participation.

4.5. The Influence of Educational level on public participation in management of infrastructure projects in public primary schools in Transmara East Sub-county.

This section presents the findings in respect to objective to which sought to determine how educational level of community members influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub-county.

Education level attained by community members has been noted to influence their participation in different areas of development. It is therefore necessary to determine, if any, how levels of education attained may positively or negatively influence participation.

In this study, participants were asked if they know parents without formal education but have children in local public primary schools.

Table 4.11: Educational Level of Parents

Parents without formal education	Frequency	Percentage
Yes	238	89
No	29	11
Total	267	100

From the table, the findings indicate majority of respondents 238(89%) know parents without formal education and 29(11%) do not know. The high number of respondent at 238(89%) implies that illiteracy level is widespread and this influenced public participation on management of infrastructure projects.

To determine the number of PTA members with primary education certificate, only PTA members were required to respond to the questions tabulated in table 4.12.

Table 4.12: PTA Members with Primary Education Certificate

PTA members with KCPE Certificate	Frequency	Percentage
Yes	23	38.3
No	37	61.7
Total	60	100

From table 4.12, the findings indicate that 37(61.7%) of PTA members lack KCPE certificate and 23(38.3%) attained KCPE level. This implies that education level attained is not a necessary requirement for one to participate in the PTA committee. However, education level attained by

PTA members may influence their participation in the management of infrastructure projects in public primary schools.

Similarly to determine the level of education attained by BOM members they were asked to respond as indicated in the table below.

Table 4.13: BOM Members with Secondary Education Certificate

BOM members with KSCE Certificate	Frequency	Percentage
Yes	19	31.7
No	41	68.3
Total	60	100

Table 4.13, shows that 41(68.3%) of respondents said they do not possess KCSE Certificate and 19(31.7%) responded that they have KCSE certificate. From the findings, it can be interpreted that education level attained influenced participation of BOM members in management of infrastructure projects.

Similarly, in determining the influence of education on public participation, respondents were asked whether education levels they attained influence their participation and performance during meetings on management of infrastructure projects. Their responses were tabulated in table 4.14

Table 4.14: Education Level and Participation of Respondents

Influence of Education level on participation	Frequency	Percentage
Yes	151	56.6
No	116	43.4
Total	267	100

Table 4.14 indicates that majority of the respondents 151(56.6%) agreed that level of education attained influenced their participation and 116(43.4%) said that their participation in managing infrastructure projects is not influenced by their education level. This implies that effective participation on issues of infrastructure projects management is influenced by education level attained by the public.

Participants were further asked whether they have attended any training on management of infrastructure projects. Their response were tabulated in table 4.15

Table 4.15: Respondents' Training on Project Management

Respondents Trained	Frequency	Percentage
Yes	74	27.7
No	193	72.3
Total	267	100

According to table 4.15, respondents at 193(72.3%) said they have not attended training and only 74(27.7%) responded that they have attended training on management of infrastructure projects.

This implies that majority of respondents lack skills on management of infrastructure projects and influenced their effective participation.

4.6: The Influence of Community Leadership on Public Participation in Management of Infrastructure Projects in Public Primary Schools in Transmara East Sub County.

This section presents the findings in respect to objectives 3 which sought to examine the influence of community leadership on public participation in management of infrastructure projects in Transmara East Sub County.

4.6.1. Community Leaders by Sex.

Respondents were asked to mention community leaders they know who participate in development programme. According to the findings 207(77.5%) respondents said they know only male leaders and 60(22.5%) said they know female leaders. Further analysis showed that the member of community leaders by sex is as in table 4.16 below.

Table 4.16: Community Leaders by Sex

Community Leaders	Frequency	Percentage
Male	207	77.5
Female	60	22.5
Total	267	100

The findings from the table implied that low number of female leaders at 60(22.5%) and 207(77.5%) for the male leaders influenced their participation in management of infrastructure of projects in public primary schools. It further implies that fewer women are in leadership positions in processes of managing infrastructure projects.

4.6.2. Qualification for a Community Leader

Effective community leadership is important in processes of management of infrastructure projects and promotion of development. Qualification criteria are equally important in selecting leaders. To determine this, respondents were asked whether there are specific academic qualifications necessary to become a community leader and the findings were given in table 4.17.

Table 4.17: Academic Qualification and Leadership

Requirements for Academic Qualification	Frequency	Percentage
Yes	78	29.2
No	189	70.8
Total	267	100

From the table the findings indicate that majority of respondents 189(70.8%) said academic qualification was not a factor considered for one to be a community leader and 78(29.2%) responded that academic qualification was necessary.

The interpretation of the findings is that majority of community leaders did not possess academic excellence. This showed that lack of academic excellence among majority of community leaders influenced public participation in management of infrastructure projects. Further the 78(29.2%) respondents considered academic qualification important to community leaders in promoting public participation in management of infrastructure projects.

4.6.3. Availability of Community Leadership Structures

Availability of appropriate leadership structures is necessary in promoting efficient and effective leadership. Respondents were asked to indicate whether there were established structures on community leadership and the findings are in table 4.18

Table 4.18: Established Community Leadership Structures

Established Leadership Structure	Frequency	Percentage
Yes	53	19.9
No	214	80.2
Total	267	100

From the above table 214(80.2%) of the respondents said there are no leadership structures established and only 53(19.9%) confirmed presence of community leadership structures. This implies that lack of adequate leadership structures influenced public participation in management of infrastructure projects in public primary schools. The findings further implied that 53(19.9%) respondents referred to informal village meetings the only available leadership structures.

4.6.4. Community Leadership Structures Identified

Respondents were further asked to identify some of the leadership structures known to them in the locality and the response was tabulated in table 4.19.

Table 4.19: Community Leadership Structures

Community Leadership Structure	Frequency	Percentage
Community policing committees	35	13.1
Community development committees	11	4.1
Faith Based committees	63	23.6
School management committees	117	43.8
Others	41	15.4
Total	267	100

The responses in table 4.19 on what is considered leadership structures indicated that majority of respondents at 117(43.8%) considered school management committees, 11(4.1%) mention community development committees, 35(13.1%) identify community policing committees, 63(23.6%) identify faith based committees and 41(15.4%) respondents were unable to identify any of the structures presented.

The findings implied that community development structures influenced respondents' participation in management of infrastructure projects.

4.6.5: Community Leadership and Academic Qualification.

Leadership skills are important for effective management of development projects. Skills development for leaders facilitates processes of management of infrastructure projects.

In determining the relationship between leadership and academic qualifications, respondents were asked whether academic qualification influence leadership and the findings are in table 4.20.

Table 4.20: Leadership and Academic Qualifications

Academic Qualification Influence Leadership	Frequency	Percentage
Yes	63	23.6
No	204	76.4
Total	267	100

The findings from table 4.20 showed that 63(23.6%) respondents agreed that leadership is influenced by academic qualifications and 204(76.4%) said academic qualification does not influence leadership. This implied that majority of the respondents believed effective leadership does not require academic qualifications. 63(23.6%) respondents however said that academic qualification influenced leadership in management of infrastructure projects.

4.7. The Influence of Social-Cultural Factors on Public Participation in Management of Infrastructure Projects in Public Primary Schools in Transmara East Sub County.

This section presents the findings in respect to objective 4 which sought to assess the level at which socio-cultural factors influences public participation in management of infrastructure projects in the sub-county of Transmara East. Public participation can be influenced by different cultural factors in processes of infrastructure projects management.

4.7.1. Attendance to Public Meetings by Sex.

To assess this influence, participants were asked to indicate the number of women and men attending public meetings on issues of infrastructure projects management and the findings are in table 4.21.

Table 4.21: Meetings Attendance by Sex.

Attendance of meetings	Frequency	Percentage
Male	166	62.2
Female	101	37.8
Total	267	100

The finding indicated that 166(62.2%) male attended and 101(37.8%) female attended the meetings. This implied that males were more ready and available to attend meetings than the female. The study also performed across tabulation between attendance by age and sex to public meetings on issues of development and the result is given in table 4.22.

Table 4.22: Attendance of Meetings by Age and Sex

Age (Years)	Male	Female	Total
18-25	35	7	42
26-33	53	12	65
34-41	43	20	63
42-49	62	17	79
50 and above	15	3	18
Total	200	67	267

The responses indicated that age and sex are related and they influenced attendance to meetings by the public.

Table 4.22 shows that the highest number of female attending meetings was 20 within the ages of 34-41 years, followed by 17 females within the ages of 42-49 years. The lowest number of females who attended the meetings was (3) within the age of 50 years and above, followed by 7 females within the ages of 18-25 years. The highest number of male at 62(42-49 years), followed by 53 male (26-33 years) attended the meetings. The lowest number of male was recorded at 15 within the ages of 50 years and above. Within the ages of 26-33 years, only 12 females out of 65 participants attended the meetings. The findings implied that low number of females within the ages 18-25 years and 50 and above years attended the meetings and this influenced their participation in management of infrastructure projects. Participation among females was more influenced than that of their male counterparts within the ages of 50 years and above.

4.7.2: Attendance by Days of the Week.

Public participation community development programmes can be effectively achieved when the meetings days are planned for. Respondents were therefore asked to state how participants would attend public meetings and different days of the week. The result was tabulated in table 4.23.

Table 4.23: Attendance of Meetings by Days of the Week

Days Of The Week	Frequency	Percentage
Monday	36	13.5
Tuesday	64	24
Wednesday	69	25.8
Thursday	56	21
Friday	34	12.7
Saturday	5	1.9
Sunday	3	1.1
Total	267	100

The findings showed that 36(13.5%) of the respondents attended meetings on Mondays, 64 (24%) on Tuesdays, 69(25.8%) of the respondents attended on Wednesdays, 56(21%) on Thursdays and 34(12.7%) on Fridays. This implies that majority of the respondents attend meetings held on Wednesdays. On Sundays, the attendance was the lowest at 3(1.1%). On Saturdays, the attendance was slightly higher at 5(1.9%), compared to that on Sundays.

4.7.3: Attendance and Meeting Times.

Attendance to public meetings on development programmes can be influenced by time schedule of meetings. To assess influence of time on attendance, respondents were asked to indicate preferred time for public meetings and the findings were tabulated in tabulated in table 4.24.

Table 4.24: Attendance and Time

Time	Frequency	Percentage
8am - 10am	39	14.6
11am -1pm	91	34.1
2pm - 4pm	119	44.6
5pm - 6pm	18	6.7
Total	267	100

The findings revealed that most of the respondents 119(44.6%) preferred meetings held between 2 p.m to 4 p.m, 91(34.1%) preferred meetings between 11 a.m to 1p.m, 39(14.6%) between 8a.m to 10a.m and 18(6.7%) indicated that they preferred meetings between 5p.m to 6 p.m. The findings revealed that majority of the participants attend meetings conducted between 2p.m to 4p.m and that low number of participants at 18(6.7%) was recorded between 5p.m to 6p.m.

4.7.4. PTA and BOM Members by Sex

Participants undertaking management of infrastructure projects can be influenced by the composition of members is given development committees. To assess this, respondents (PTA/BOM) were asked to state their sex and the results indicated in following table.

Table 4.25: PTA Members by Sex

PTA members	Frequency	Percentage
Male	47	78.3
Female	13	21.7
Total	60	100

The findings showed that 47(78.3%) of PTA members were male and 13(21.7%) were females. This implies that majority of PTA members are male. The number of BOM members was also tabulated after participants responded as indicated in the table 4.26

Table 4.26: BOM Members by Sex

BOM members	Frequency	Percentage
Male	49	81.7
Female	11	18.3
Total	60	100

From table 4.26, it indicated that females members in BOM were 11(18.3%) and 49(81.7%) were male. The results implied that majority 49(81.7%) of BOM members was male and female members were only 11(18.3%).

4.8. Discussion of the Study Findings

This section discusses the findings of the study

4.8.1 Demographic Characteristics of the Respondents

The participants reached in the study was 267, comprising of 193(72.3%) females and 74(27.7%) male. The findings further indicated that majority of the respondents 79(29.6%) were between the ages of 42-49 years while 18(6.7%) respondents were of the age 50 and above years. Those aged 26-33 years and 34-41 years were at 65(24.3%) and 63(24%) respectively. According to the responses, 169(63.3%) were married, 56(21%) indicated they were single, 25(9.4%) were widowed while only 17(6.4%) of the participants indicated that they were divorced. This showed

that majority of the respondents had their children in these local public primary schools thus their interest to participate in schools' development activities.

The study further revealed that 138(51.7%) of the respondents indicated that they were subsistence farmers, 60(22.5%) indicated they were teachers in local public primary schools while 58(21.7%) represented other members of the public. This implied that the sample used for the study was fairly distributed. The study further revealed that 185(69.3%) of respondents had attained post primary education and that 82(30.7%) indicated they had attained primary school certificate. Further, 76(28.5%) indicated attainment of O' level certificate, 66(24.7%) had certificate level of education while 37(13.8%) had diploma certificate. Only 5(1.9%) and 1(0.4%) of the respondents indicated they attained bachelor and masters degree certificates respectively. This implied that levels of education attained were adequate and this enabled respondents to actively participate in the study.

4.8.2 Influence of Community Awareness on Public Participation in Management of Infrastructure Projects in Public Primary Schools

The study findings showed that 94(35.2%) of respondents preferred radio to other forms of communication channels as an appropriate medium in creating awareness on management of infrastructure projects in schools. It was further noted that 78(29.2%) of the participants preferred school going pupils to deliver information regarding management and development activities being undertaken in the schools. It was evident from the result that respondents preferred pupils because they can be reached easily. At 46(17.2%), Faith Based Institutions (churches) were similarly found to be important channels of mobilizing the public to participate in management of infrastructure projects. This implied that churches are points of trust where the

public received reliable information. These findings confirmed that of Weyama (2013) who observed that inappropriate modes of communication used in creating public awareness towards effective management of infrastructure projects led to management failure. UNICEF (1999) also found out that inadequate information on when and how the public should participate in management of projects led to low involvement. It was also established that 154(57.7%) of the respondents indicated that their attendance to meetings is influenced by their occupation and 113(42.3%) were not influenced by their occupation to attend meetings. This implies that occupation of community members influences their availability to attend development meetings.

The study further revealed that majority 192(71.9%) of the respondents was reluctant to seek for information on whether infrastructure projects identified are established and operational. Only 75(28.1%) responded to have sought for information on projects established. This implies that low awareness and inadequate monitoring by the public on projects established influenced their participation in management of infrastructure projects in Transmara East.

It is evident that there is need to appropriately identify and use communication channels which are preferred by the public in creating awareness on their participation in management of infrastructure projects.

4.8.3 Influence of Level of Education on Public Participation in Management of Infrastructure Projects in Public Primary Schools

According to the findings, most respondents 193(72.3%) indicated that they have not been trained on skills for management of infrastructure projects; while only 74(27.7%) have attended the trainings. The study further revealed that 151(56.6%) of the respondents indicated that their participation is influenced by education level attained and 116(43.4%) said that their

participation in management of infrastructure projects is not influenced by level of education. This contradicts findings by Folk (2011), who noted that public members are unqualified to participate in making decisions on management of projects issues, which are considered complex and technical for those lacking professional qualifications in project management. It was similarly evident from the study that the low percentage of respondents 74(27.7%) with management skills on infrastructure projects led to management challenges in many public primary schools.

These findings were supported by those of Wathome (2013) and Gakuru and Kahigi (2014) who noted that lack of management skills led to poor management and sustainability of projects. The study further noted that majority 41(68.3%) of the schools' management committee members lacked Secondary Education certificates. This was noted to have led to their low participation during processes of project evaluation.

The above cases demonstrate that training on skills for managing infrastructure projects is necessary in ensuring sustainability of established projects. Members of Board of Management undertaking implementation of projects in all public primary schools should be versed with necessary skills; which can be achieved through participatory trainings.

4.8.4 Influence of Community Leadership on Public Participation in Management of Infrastructure Projects in Public Primary Schools

According to the study findings, 189(70.8%) of the respondents indicated that there are no specific academic qualifications requirements to become a community leader and only 78(29.2%) said that academic qualification is a requirement. This demonstrated that a level of education attained by the any public member is not an important requirement for ascending to

leadership in the community. However, Ngesu, Gunga and Kahigi (2014) argued that lack of effective communication and interpersonal skills, which are usually acquired academically, limits community leaders' ability to enhance public participation in management of projects.

In further analysis of the findings, the study showed that 204(76.4%) of the respondents said academic qualification does not influence participation of leaders while only 63(23.6%) indicated it does, in processes of managing infrastructure projects in public primary schools within Transmara East. The above findings implied that academic qualification is not an important factor considered for community leadership. The study further revealed that majority of the respondents 214(80.2%) indicated lack of community leadership structures while only 53(19.9%) said the structures necessary for facilitating accountability among leaders are established. The findings confirm that there is need to establish appropriate infrastructures where community leaders can be held accountable (Omondi and Kamau 2010).

The above findings demonstrate that effective community leadership requires appropriate leadership structures and interpersonal skills to enable all leaders perform duties of promoting active public participation in processes of managing infrastructure projects.

4.8.5 Influence of Socio-Cultural Factors on Public Participation in Management of Infrastructure Projects in Public Primary Schools

The study used various indicators that are interpreted to represent socio- cultural factors. According to the findings, 49(81.7%) male were members of schools' Board of Management and only 11(18.3%) were females, who participated in development programmes. From the findings it implied that inclusion of females in management decision is still a challenge towards achieving effective gender mainstreaming goals. The findings are also confirmed by those of Kipuri and

Ridgewell (2003) who also observed that women are still considered as weaker sex to participate in processes of community leadership and decision making.

According to the findings, 7(16.7%) respondents aged 18-25 years who attended meetings were females and the majority 35(83.3%) were males. The study further revealed that only 18(6.74%) of respondents aged 50 years and above attended the meetings. This implied that those aged 50 years above could have been influenced by their old age and the long distance between their homes and meeting venues. The low 7(16.7%) attendance by females aged 18-25 years compared to that of 35(83.3%) males within the same age category imply that young women are confined in their homes attending to children and other domestic chores. Moreover, the high number of male at 43(68.3%) aged 34-41 years, who attended the meetings implied that they are more available to attend meetings compared to the female who are confined at their homes to perform domestic chores. The findings confirm age influences public participation and that women are more involved in domestic chores, which limits their participation in community development activities (Wanyoike, 2014). The study further revealed that majority 69(25.8%) of the respondents attended public meetings on Wednesdays, followed by Tuesdays at 64(24%), which are non market days. Low attendance was also indicated on Mondays 36(13.5%) and Fridays 34(12.7%), which respondents said were market days in the locality. The lowest attendance recorded on Saturdays and Sundays at 5(1.9%) and 3(1.1%) respectively implies that participants attend church services on these days influenced their participation in meetings conducted on weekends. Mondays and Fridays were indicated by respondents as main market days in the locality and their attendance to meetings is influenced by attendance to the markets.

The findings do confirm that public participation in development programmes is constrained by different domestic roles individuals engage in (Ngesu, Gunga, and Kahigi 2014).

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This study however found out that it is not only women who consider market days important, even men equally attend and socialize during these days of the week. This implies that public participation meetings on management of infrastructure projects need to be conducted on non market days towards realizing effective participation.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter gives the summary of the research findings, conclusions, recommendations for policy formulation and further research.

5.2. Summary of findings

This study's quest was to investigate factors influencing public participation in management of infrastructure projects in public primary schools in Transmara East Sub County, Narok County, Kenya. The objectives of the study were to establish the extent to which community awareness influences public participation in management of infrastructure projects; educational level of community members; community leadership and influence of socio-cultural factors.

The study indicated that there were low levels of community awareness and participation on management of infrastructure projects due to the use of unreliable communication channels and individuals' occupation. Specifically, radio was the most preferred medium of creating awareness at 94(35.2%), followed by school going pupils at 78(29.2%). Inadequate community awareness was further revealed to have led to low number of participants at 75(28.1%) who sought about established projects as planned. Occupation was also indicated to have influenced participation of 154(57.7%) participants in management of infrastructure projects. These findings indicated the importance of using reliable communication channels in creating awareness on development activities.

Similarly, 151(56.6%) of the respondents indicated that education level attained influences how they participate in processes of managing infrastructure projects. It was further noted that majority 193(72.3%) of the participants lacked skills to manage projects and this led to low participation and management failure in sustainability of projects. This was evidenced where only 19(31.7%) of schools' BOM indicated they have been trained on aspects of project management whereas 41(68.3%) lacked these skills.

Further analysis showed that academic qualification does not influence individuals' ability to ascend into leadership position at 204(76.4%). Similarly, the findings noted that at 214(80.2%) respondents reported lack of appropriate community leadership structures as a factor, which influenced active public participation in management of infrastructure projects. Attendance and participation by the public in meetings on management of infrastructure projects was also found to be influenced by sex. The number of females was at 101(37.8%) whereas male respondents was at 166(62.2%). Age was also noted to influence attendance to meetings as the findings revealed that only 18(6.74%) of those aged 50 years above participated in meetings on management of projects. Market days and church service days which are important social gatherings for the community were noted to influence their attendance and participation in other development activities as illustrated in table 5.27. Low attendance was recorded on Saturdays 5(1.9%) and Sundays 3(1.1%) recorded low attendance because they are church service days. Similarly, Fridays and Mondays were the main market days thus the low attendance at 36(13.5%) and 34(12.7%) respectively.

Table 5.1: Attendance of Meetings by Days of the Week

Days Of The Week	Frequency	Percentage
Monday	36	13.5
Tuesday	64	24
Wednesday	69	25.8
Thursday	56	21
Friday	34	12.7
Saturday	5	1.9
Sunday	3	1.1
Total	267	100

5.3. Conclusions

Based on the findings of the study, the following conclusions were made:

The study concludes that community awareness did influence public participation in management of infrastructure projects in Transmara East Sub County. Communication channels used determined the level of preference attached to them by the community. Radio was the most preferred medium of creating awareness on issues of infrastructure project management followed by school going pupils. The study also concludes that occupation of community members influenced public attendance and participation in development programmes. The study further concluded that weak processes of monitoring of ongoing and established community infrastructure projects by the public were widespread in the Sub County.

The study concludes that majority of the schools' Board of Management members lack skills on management of infrastructure projects. This led to management failure of projects in some public primary schools in Transmara East. This implies that sustainability of infrastructure projects in the schools can be effectively realized by equipping the board members with project management skills.

The study also concludes that community leadership did have influence on public participation in management of infrastructure projects in Transmara East. Specifically, lack of community leadership structures limited the ability of the public to hold leaders accountable in processes of projects' management. In the study, it was also concluded that level of education attained does not influence an individual's ability to ascend into leadership position. However, it does influence their participation on management of infrastructure projects. This means that education attained by the public is important towards achieving effective participation in management of infrastructure projects.

The study concludes that socio-cultural factors influence public participation in management of infrastructure projects in Transmara East Sub County. Female's inclusion into schools' board of management was low as they were regarded to remain at home attending to children and other domestic chores. They were also seen as a weaker sex by their male colleagues hence cannot undertake management responsibilities. Public participation was similarly influenced by different social gatherings such market days and church service days, which community members regard considers important. This implied that social activities are important events in every community and for every individual to participate in. The study also concluded that age influences public participation. This means that it is important to consider the different ages of all community

members while planning on how effective they should be involved in development programmes.

5.4. Recommendations

Following the findings, the study gave the following recommendations;

There is need to establish community awareness programmes in consultation with relevant community opinion leaders, which they can readily adopt. Awareness programmes should be customized in line with community members' preference. Preferably, they should suit all ages and sexes.

The Kenya Ministry of Education, through the department of Adult Education and Continuing Learning need to take a lead role in promoting acquisition of basic education by establishing community learning centers within Transmara East. Young parents should be targeted and encouraged to actively involve in the process of addressing education challenges facing them. In particular, education officers need to liaise and organize consultative meetings with other education stakeholders in the community to promote appropriate programmes and activities on Education For All. This will ensure that such discussions are conducted within an environment where all stakeholders are involved.

Effective socio-cultural programmes, which are mutually accepted is vital for long term inclusion of female in promoting their participation in project management. There is need to provide deliberate programmes, which ensures that women are included in management position of schools' Board of Management. To address challenges of social gathering and activities such as markets and church service, community leaders and other relevant education stakeholders need to work together towards supplementing each other in ensuring that appropriate timetables are developed to reduce non-attendance to development meetings.

Parents, teachers and other education stakeholders should be sensitized on the best practices, which promote women participation in infrastructure project management. In particular, men and other community leaders need to take lead role towards eradicating retrogressive socio-cultural perceptions limiting females' participation. Moreover, education officers in collaboration with local administrators should ensure that enforcement of rules and regulations on establishing schools' Board of Management members are strictly followed.

5.4.1. Recommendations for Policy Issues/Formulation

The Kenya government, through the Ministry of Education needs to design advocacy activities to promote public participation in management of schools' projects. Similarly, clear policy guidelines on re-defining the responsibilities of adult education and continuing learning department with a view to promoting enrollment of young parents into community learning centers should be developed. Specifically, special schools with flexible and manageable learning time tables for young mothers and other targeted community should be established in places where they feel comfortable. Sensitization on such policy statements need to be conducted through participatory engagements that ensures all education stakeholders are informed of their implementations.

Development of socially and culturally friendly policies on public participation should involve all categories of community members towards promoting ownership in implementation and management of infrastructure projects in all public primary schools, in Kenya. This will enable members of the community to freely discuss issues on participation and how effective they can be planned to ensure active involvement.

5.5. Suggestions for Further Research

Following the findings, the study gave the following suggestions for further research:

1. A study should be undertaken to examine the influence of women involvement in the management of development projects in schools in Transmara East.
2. Factors influencing participation of youth in the management of community water projects.
3. A study on the extent to which government policies influence public participation in the management of community development projects in Transmara East.
4. There should be a study on factors influencing lending of Youth Enterprise Development Fund to youth groups in Emurua Dikirr constituency, Transmara East.
5. Factors influencing management of funds given to support groups of People Living With HIV/AIDS in Transmara East.
6. There is need to undertake a study on procurement procedures on community projects in Transmara East.

5.6. Contribution to Knowledge

This section presents the study's contribution to existing knowledge as illustrated in Table 5.1

Table 5.2: Contribution to Knowledge

Objective	Contribution to Knowledge
1. To establish the extent to which community awareness influences public participation in management of	Community awareness influences public participation in management of infrastructure projects in public primary schools in

<p>infrastructure projects in public primary schools in Transmara East Sub County.</p>	<p>Transmara East Sub County. There is need to consider effective community awareness creation strategies when planning public participation activities.</p>
<p>2. To determine how educational level of community members influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.</p>	<p>Educational level attained by community members influences their participation in management of infrastructure projects in public primary schools in Transmara East Sub County. Skills on project management are therefore critical for all members of schools' Board of Management.</p>
<p>3. To examine how community leadership influences public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.</p>	<p>Lack of Community leadership structures limits public members' ability of holding their leaders responsible in processes of management of infrastructure projects. These structures are therefore important in ensuring the public actively participate.</p>
<p>4. To assess the level at which socio-cultural factors influence public participation in management of infrastructure projects in public primary schools in Transmara East Sub County.</p>	<p>Age of community members and the social activities they engage in influence their participation in implementing and managing infrastructure projects.</p>

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APPENDIX I: LETTER OF TRANSMITTAL

OREGO LASARO OJANGO

P.O.BOX 75-20401

CHEBUNYO.

PHONE: 0721-649-134

17th March, 2015.

THE SUB COUNTY EDUCATION OFFICER

TRANSMARA EAST

P.O.BOX 70-20401

CHEBUNYO.

Dear Sir,

RE: REQUEST FOR RESEARCH DATA COLLECTION

I am a student undertaking Master of Arts in Project Planning and Management at the University of Nairobi. As part of my assessment, I am required to submit a research project on the same. My proposed study is titled, `factors influencing public participation in management of infrastructure

projects in public primary schools; a case of Transmara East Sub County, Narok County, Kenya_.

I have designed a questionnaire to enable me collect data for the proposed study. The Sub County education officer, zonal education officers, selected members of Board of Management from primary schools, head teachers, and NGO officer will be among the respondents for the study. I am therefore requesting for your authority to collect data from the mentioned persons. The information obtained will only be used for academic purpose. Moreover, the study findings shall be made available to you upon request.

Your assistance will be appreciated.

Thanks in advance

OREGO LASARO OJANGO

v. Occupation?.....

vi. Sex

vii. Administrative Location

SECTION B

Community awareness

1. Have you ever attended a public meeting discussing issues on management of infrastructure projects in your local schools? (a)Yes [] (b) No []

2. Indicate which channel of communication is preferred for creating community awareness in the locality.

a) Radio [] b) Posters [] c) Faith Based Institutions [] d) Friends [] e) School pupils []

3. Do you usually seek information regarding projects which have been established as planned during community meetings?

a) Yes [] b) No []

4. Indicate whether you agree/disagree that inadequate information on projects ~ identification among community members contributes to low participation in management of infrastructure projects in schools.

a) Strongly agree [] b) Agree [] c) Indifferent [] d) Disagree [] e) Strongly disagree []

5. In your opinion explain the influence of community awareness on management of infrastructure projects in public primary schools

Socio-cultural factors

1. Are there any socio-cultural factors influencing management of projects in your school? Yes [] No []. If yes, answer question 2 and if No, skip to question 3.
2. Briefly mention them
.....
.....
3. Which category of community members frequently participate in public meetings? a) Female [] b) Male []
4. Briefly comment on the ages of those attending public meetings referred to in the question above?
.....
.....
5. In your opinion, which day of the week is appropriate to conduct public meetings? (a) Mondays [] (b) Tuesdays [] (c) Wednesdays [] (d) Thursdays [] (e) Fridays [] (f) Saturdays [] (g) Sundays []
6. Mention some of the reasons why people prefer the day mentioned in question 5 above?
 - i.
 - ii.
 - iii.
7. Mention some possible steps that can be taken to address challenges of socio-cultural factors, which influence public participation in management of projects.
 - i.
 - ii.

2. Mention some of them

i. _____

ii. _____ .

iii. _____

3. Which category of community members frequently participate in public meetings? a)

Female [] b) Male []

4. Briefly comment on the ages of those attending public meetings referred to in the question

above? _____

_____ .

5. In your opinion, which day of the week is appropriate to conduct public meetings? (a)

Mondays [] (b) Tuesdays [] (c) Wednesdays [] (d) Thursdays [] (e) Fridays []

a. (f) Saturdays [] (g) Sundays []

6. Mention some of the reasons why people prefer the day mentioned in question 5 above?

i. _____ ..

ii. _____ ..

iii. _____ .

7. Mention some possible steps that can be taken to address challenges of socio-cultural factors, which influence public participation in management of projects.

8. In your own opinion what is the appropriate time to conduct public meetings?

(a) 8am - 10am [] (b) 11am - 1pm [] (c) 2pm - 4pm [] (d) 5pm - 6pm []

APPENDIX IV: INTERVIEW SCHEDULE FOR CFAM AND SCEO

My name is Oregio Lasaro Ojango. I am a student undertaking Master of Arts in Project Planning and Management at the University of Nairobi. Currently, I am conducting a research on `factors influencing public participation in management of infrastructure projects in public primary schools; a case of Transmara East Sub County, Narok County, Kenya`.

You have been identified as a respondent in this research to assist in data collection by answering the following questions. The information you give will be treated as confidential.

1. (a) Name (Optional) _____
(b) Sex _____
2. Age : a) 18-25 years [] b) 26-33 years [] c) 34-41 years []
d) 42-49 years [] e) 50 years and above []
3. What is your highest education/professional qualification attained: a) Primary [] b) Secondary [] c) Certificate [] d) Diploma [] e) Degree [] f) Masters [] g) Doctorate [] h) Others (specify) _____
4. Marital status: a) Single [] b) Married [] c) Widow/Widower [] d) Divorced []
5. In your opinion, how can community awareness on project management be improved in the locality?.....
6. Are there members of PTA/BOM in your local public primary schools who do not have formal education? Yes/No _____. How many are they?.....

APPENDIX V: Morgan's Table for Determining sample size from a given population

Population size	Sample size	Population size	Sample size
10	10	300	169
20	19	400	196
30	28	1500	306
40	35	2000	322
50	44	3000	341
60	52	4000	351
70	59	5000	357
80	66	6000	361
90	73	7000	364
100	80	10000	370
150	108	20000	377
200	132	50000	381
250	162	100000	384

Source: R.V Krejcie and Morgan (1990)