

**ASSESSMENT OF INFORMATION LITERACY SKILLS IN COUNTY
GOVERNMENTS: A CASE STUDY OF MACHAKOS COUNTY KENYA**

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**A research project submitted in partial fulfilment of the award of a Master Degree in
Library and Information Science in the Department of Library and Information Science,
Kenyatta University.**

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Declaration

I confirm that this research project is my original work and has not been presented in any other university/institution for certification. The Project has been complemented by referenced works duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other works- including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

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Dedication

I dedicate this research to my loving family most especially my daughter Bakhita C.R who even at her tender age gave me a most peaceful time to write my project.

Acknowledgement

I wish to acknowledge the assistance given to me during the course of writing this research project by the Machakos County Assembly officers in form of background information and research data, especially the Machakos County Assembly Librarian Mr.Paul Keli. I would also like to acknowledge the immense support given to me by my family, friends, colleagues. and the guidance of my supervisor Dr. Daniel Muthee throughout this research project.

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Abbreviations and Acronyms

ACRL	The Association of College And Research Libraries
CGO	County Government Officer
GDC	Government Data Centre
ICTA	The Information And Communications Technology Authority
IL	Information Literacy
IPS	Information Problem Solving
NCLIS	National Council of Library and Information Science
NFIL	National Forum of Information Literacy
UNESCO	United Nations Education Scientific and Cultural Organization
USAID	United States Aid
LIS	Library and Information Studies

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Abstract

This project report describes a study that was undertaken to find out evidence of knowledge in information literacy, skills and practices if any in the county government environment in Kenya. It also investigates the connection between acquired literacy skills and their influences on service delivery, particularly with respect the county government office as the work place.

A case study method was employed; data collection involved the administration of questionnaires to selected county officers in this case Machakos County assembly staff and interviewing selected information experts in the county. A mixed method approach was used to provide complementary insights to the findings of the study.

This study is important especially at this time when Kenya is at the onset of implementing the county government structure. The outcome of this research will provide important feedback for policy making process in counties and the nation at large.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter provides the overview of the rationale behind the study, the statement of the research problem, the research questions and objectives, the purpose of study, the theoretical and conceptual framework that underpins the study, the research methodology used as well as the study's scope and delimitation. Definition of key terms used in the study is provided.

1.2 Background to the Study

Information Literacy (IL) is the set of skills needed to find, retrieve, analyze, and use information. The phrase information literacy was first coined by Paul G. Zurkowski, 1974(Annual Report NCLIS, 2000). In this report the phrase was used to describe the techniques and skills" known and used by experts in the field of information management. The techniques and skills utilize a wide range of information tools as well as primary sources in molding information solutions to literacy problems. Accordingly, information literacy is critical for organizational operation and performance.

All over the world, information literacy is becoming a key ingredient in governance. Indeed, the Prague Declaration of 2003 described information literacy as a "key to social, cultural and economic development of nations and

communities, institutions and individuals in the 21st century". Its acquisition was in fact declared as "part of the basic human right of lifelong learning"(NFIL, UNESCO and NCLIS 2003).

Better information skills are vital for individuals working in governmental organizations as well as in the business sector. Employees are expected to be confident and competent in interacting with information in their workplace in order to deliver better services to customers and to the public.

However, global literacy statistics paint a grim picture with regard to access and use of information in human development. According to the UNESCO Institute for Statistics September 2012 Fact Sheet, adult literacy in the world stood at 84.1% while that of the youth was at 89.6%.Significantly the lowest levels of literacy were observed in Sub-Saharan Africa with an adult literacy level of 63% and youth literacy level of 72%.In Kenya, the adult literacy rates stood at 87.4% (UN Human Development Report, 2011).With the devolved Government in place, Information Literacy programs, platforms and strategies will rely greatly on the existing literacy levels in a given county.

County government is a structure of governance provided in Article 10 of The Kenyan Constitution (2010) barely five years ago. It is therefore important for the County administrators to be equipped with the necessary information skills, if the new structures are to be implemented successfully.

As Kenya moves towards being more information-centric, having adequate information skills becomes valuable in public and private organizations, businesses, and governmental agencies. This greatly contributes to good governance.

1.3 Statement of the Problem

The 21st Century society/economy is information-driven and is Knowledge based.

IL therefore serves as a key component in such a society/economy in building effective governance and provision of quality services.

Information literacy has been suggested as one of the essential criteria for the workforce (Cheuk, 1998), although it has been discussed more in the educational context.

Notably the Kenyan Government is keen to enhance access to information with information technology as a platform. It has established major initiatives to ensure that the public enjoys its right of access to information in the most convenient and accurate way. The Popular term in use today is e- governance which partly describes such interactions between the government and the public using technology.

It is not clear to what extent information literacy skills help people prepare to enter the workplace and deliver effectively. It is ambiguous as to what extent

IL standards and models, mostly developed in educational context, can be applied to address problems in the workplace. Due to the nature of their work, some arms of government like county and municipal councils cannot serve the public in the same manner as commercial businesses and organizations.

Research into information literacy has also shown that though considerable attention has been given to studies that focus on teaching information literacy skills as scholarly tool, not much has been documented on studies that relate to information literacy as a tool for effective governance. Notably in Kenya a few studies have been conducted mainly by international organizations like UNESCO, IFLA which explore the information literacy behaviors against developed standards.

Preliminary studies showed that the profile of Library Services in the Machakos County government is very low. Most departments in the county government are in the initial stages of either building or furnishing information centers.

It is easy to firstly concern ourselves with the IL skills of the public, but as information experts the key issue to address is the IL competence of the public officers.

It is therefore inevitable that the major facilitators' good governance are the public officers. Global, regional and national statistics point to a poor IL rate

among the Kenyan population, including professionals. Despite the vast number of Studies on IL skills none for has addressed county governments. More studies are therefore needed in this area. While it is critical for IL in ensuring effective and efficient delivery of services at all levels, the newly devolved County Governments will have to provide such services amidst this challenge. However, for the County Government to be able to offer efficient and effective services knowledge on what determines IL is therefore important and yet it has not been established. Such knowledge can inform both policy formulation on IL and enhance service delivery in the County Government

1.4 Purpose of the study:

To identify how the county government officers are positioned to make use of information as a core tool for governance.

1.5. Specific objectives:

1. To find out evidence of knowledge of information literacy, information skills and practices in the governance environment
2. To identify the extent to which professional training equips public officers with competencies for service delivery.

3. To justify the connection between information literacy education and work related information literacy knowledge, skills and practices.

1.6 Research questions

1. What are the information literacy skills demands for public service required for county officers?
2. To what extent do the components of information literacy as put forward in IL models reflect on the ideal concept of knowledge and skills required for county governance?
3. What is the nature of uncertainty experienced by county government officers in the course of information seeking and use?
4. What workplace competencies are required by the County Government and are these being met by current formal education?
5. What kind of collaboration is needed between the various players in the government sector and formal education in order to promote the development of competency skills among public officers?

1.7 Assumptions

An assumption is any fact that the researcher will take as true without verifying it (Mugenda and Mugenda, 2003). During this study, the researcher had assumed the following;

- The county officers were aware of the Kenya e government portal which provided an information platform for the County Government officers in their day -today operations.
- That the study was limited to respondents who have passed through a Kenyan education system and have a tertiary level or beyond.

1.8 Limitations

Inherent in all research projects are limitations that extend beyond the control of the researcher. “A limitation is an aspect of research that may influence the results negatively but over which the researcher has no control” (Mugenda and Mugenda, 1999).

One of the limitations of this research was the generalization of population the focus of the study was restricted to a assessment of IL skills of County assembly officers in the Machakos

County Assembly. Machakos County Government has just begun its operations under the new constitution. As such the study was limited to those officers already in office most of whom have transitioned from the local authority.

This topic has been minimally highlighted in previous studies which made it difficult to get literature for the research.

Another limiting factor was the reluctance of the officers to divulge information since they felt that that they were compromising the county administration. From the onset of data collection the researcher was not allowed to engage any officer of the executive arm of government.

1.9 Delimitations

(Mugenda and Mugenda, 2003) defines delimitations as the factors that make a researcher have a way around some problems or potential weaknesses in the research and is able to control them.

These factors contributed to making this study a success

- The County Assembly officers were very receptive making it easy for the researcher to engage them objectively during the data collection process.
- The researcher used a mixed method approach which blended the strengths of each method making the research more valid and reliable.

1.10 Significance of the study (Rationale)

- This study is important most especially at this time when Kenya is beginning to operate in its newest system of a devolved government. This research will form rich insights on Information Literacy at the government level which will advance knowledge in IL in Kenya.
- Given the timing of the study, the indicators established in the study will inform the creation of County Information Literacy policies. The study will work as a baseline survey for establishing strategies on Information Access as provided for in the County Government Bill of 2012.
- This research may help the county Government officers in applying best standards for information management and dissemination. This will definitely ensure proper use of resources and efficiency in service delivery.
- Hopefully the findings of this study will raise new areas for further research, and also serve as previous knowledge and a guiding theory for future research.

1.11 Theoretical Framework

(Kerlinger ,1986) defines theory as a set of inter-related constructs, definitions and propositions that represent a systematic view of phenomena by specifying relations among variables and predicting phenomena”

According to(Todd,R.J,2000) a more holistic theoretical framework for information literacy than is articulated in the educational context will provide a greater focus on the user and provide insight into people’s information behaviour. (Mutch,A,2000) also suggests that, with the shifting of emphasis of research in IL from the educational sector to the workplace, there is a need for the theoretical basis of the concept to be sensitive to these changes particularly with respect to the effectiveness of information literacy programmes in different contexts. He argues that the bounded, structured, nature of the workplace requires the recognition that social influences can impact the way information is used and applied in a workplace environment.

For the purpose of this study therefore, a theory or model which best encompass the principles of information literacy within the context of the workplace was suitable. Consequently, the researcher adopted Byström’s (1999) theory of *Information Activity in Work* in investigating the research problem. .

1.11.1 Theory of Information Activity in Work

Byström's (1999) theory of Information Activity in Work was based on empirical research in the LIS field and other workplace studies. The theory is based on findings from her study which investigated the information seeking activities of municipal administrators and the use of different types of sources in undertaking ordinary operations. The study focused on the concept of task complexity as it affects the information seeking activities of the municipal workers. It explored how the perceived task complexity of this group of workers modified their need for different types of information and choice of information sources in work settings According to (Byström ,2002), perceived task complexity is determined on the basis of the performer's prior knowledge, about a particular task. *A priori* determinability refers to prior knowledge or experience which is a valuable quality in task performance as it helps determine the perceived task problem.

The basic assumption of the theory is that the information activities of professionals are affected by individual as well as contextual characteristics. Hence the conceptual framework adopted in Byström's study considered the basic characteristics for task based information seeking and use in a professional setting (Byström, 1999: 21).

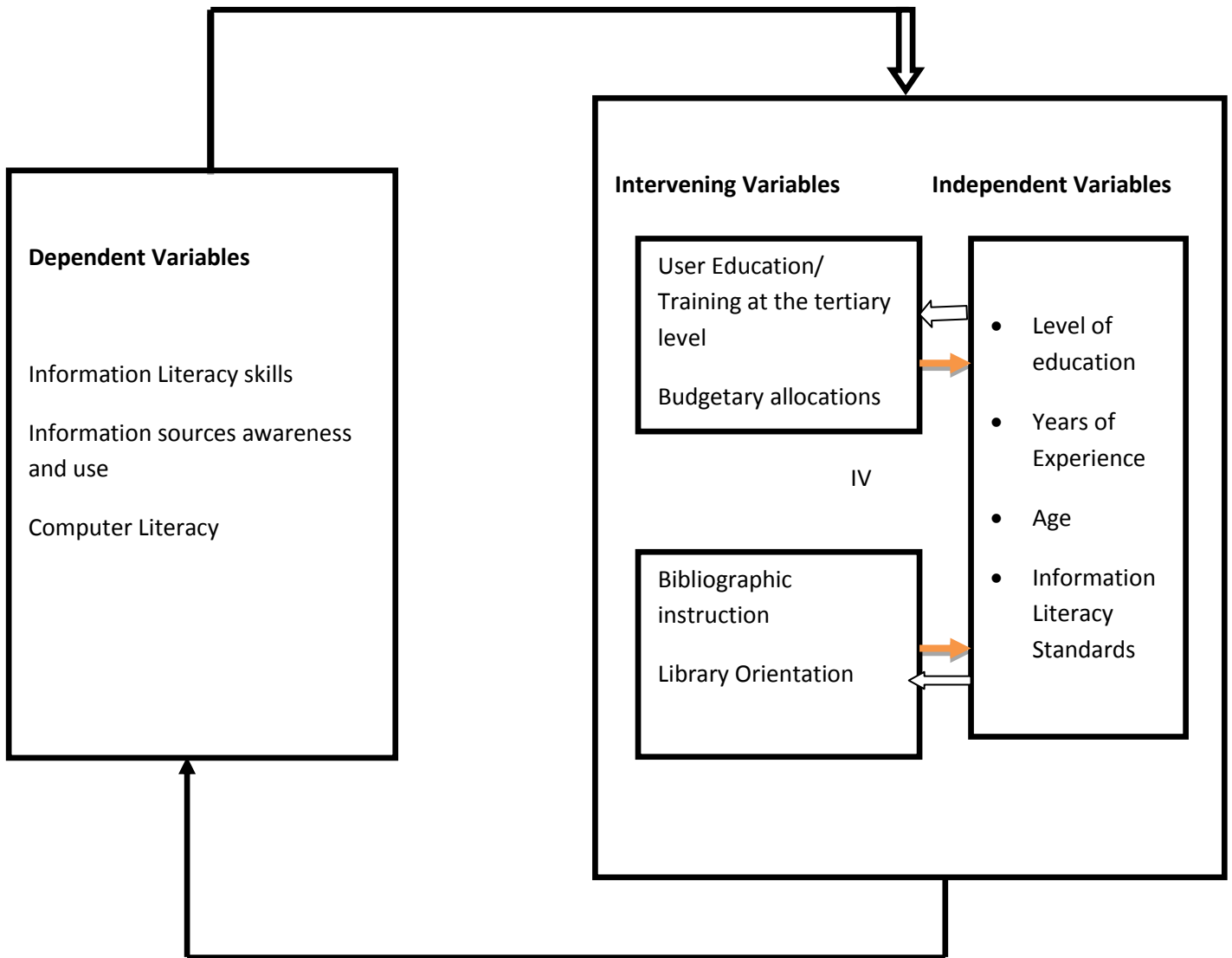
Byström's theory of Information Activity in Work settings provided an understanding of work tasks of varying complexity in a government

environment where information seeking and communication is key. It also presented an applicability to real-life work contexts where information activities occur.

From the findings of the study, Byström was able to develop a model which emphasizes aspects of work tasks in relation to information seeking and use. The design of the model was influenced by the works of Feinman and others in 1976 and Kuhlthau's (1993) ISP model (Byström, 1999)

In the context of this study, the application of the theory was used to investigate issues of varying work related tasks experienced by the county officers in the use of information resources.

1.12 Conceptual framework



Relationship between Independent Variables, Intervening Variables and
Dependent Variables

Dependent Variables

Information Literacy Skills

Information literacy skills are generally measured by perceptions of participants rather than actual performances in the literature. Thus, using perceptions of participants as measurement is relevant because information seeking and using processes of individuals are different at different times and for different purposes. Considering information problem solving process models, the key abilities in the process were determined as affected by intervening variables like Library orientation.

Computer Literacy Skills

The definition of information literacy basically indicates the required set of abilities of an information literate individual. Considering information problem solving process models, the key abilities in the process are determined. In this regard, information literacy skills of County officers were analysed through the data collection instrument. Variables like user education and training contribute largely to the level of computer literacy measured. Computer literacy is portrayed by the mastery level and confidence level of using computers and confidence levels of internet use. First, the questions measuring mastery level and confidence level of using computers were measured via question 2 and question 4 in the questionnaire document.

The Use of information Sources

Information sources used by County Government officers vary based on different tasks and the availability of sources.

Independent Variables

The Data collection instrument included items to measure independent variables of departmental affiliation, educational level, and years of experience. Education level of County government officers is determined by asking: "Highest educational qualification?" and the answer categories will range from a) high school, b) some college c) university d) master's degree e) PhD degree.

Departmental affiliation is operationalized with the question of "Which department/unit are you working in now?" The answer is open-ended and yields all types of departments that participants are working. The expected answer is not the actual name of the department but the type of department officers work in based on their operational functions.

The experience of an officer is also measured by the Basic Data table in the data collection instrument captured as "Date of appointment".

1.13 Operational definitions of key terms

Information Literacy

Since its emergence in the 1970s, information literacy has been interpreted by different authors differently. Theoretical understandings of IL have mostly come from the higher education sector, Notably the Association of College and Research

Libraries' (ACRL) definition of Information Literacy Competency Standards for Higher Education, 2000. Here, an information literate person is defined as having the ability to:

- Determine when information is needed.
- Access the needed information effectively and efficiently.
- Incorporate selected information into one's knowledge base.
- Use information effectively to accomplish a specific purpose.
- Understand the economic, legal and social issues surrounding the use of information
- and access and use information ethically and legally.

County Government Officer

Any holder of a county public service office otherwise known as "county staff", appointed by the county public board through the established in the county government Act-2012 PART IV. Having met all professional qualifications and is responsible for daily operations and service delivery to the executive and the general public.

Governance

The Merriam-Webster Dictionary Defines Governance as the way that a city, company, etc., is controlled by the people who run it.

"Conceptually, governance (as opposed to “good” governance) can be defined as the rule of the rulers, typically within a given set of rules. One might conclude that governance is the process – by which authority is conferred on rulers, by which they make the rules, and by which those rules are enforced and modified. Thus, understanding governance requires an identification of both the rulers and the rules, as well as the various processes by which they are selected, defined, and linked together and with the society generally.

Nonetheless, within this concept of governance, the obvious second question is: What is good governance? Again, the debate on the quality of governance has been clouded by a slew of slightly differing definitions and understanding of what is actually meant by the term. Typically, it is defined in terms of the mechanisms thought to be needed to promote it. For example, in various places, good governance has been associated with democracy and good civil rights, with transparency, with the rule of law, and with efficient public services." (“Governance - What is Governance?,” n.d.)

Government Information

Information is knowledge acquired through tacit or explicit sources that one may use to solve a problem, make a decision; encapsulated knowledge; packaged human experiences. Information can also be defined as data that has been organized to a

meaningful and useful form to human beings. The Concise Oxford English Dictionary (Cheuk,2011) defines information as “facts or knowledge provided or learned.”

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This Chapter provides an exploration of studies conducted on IL in the workplace. The scope of the review is confined to an analysis of studies which examine IL within organizations and government departments. It also discusses the nature and concept of IL in the workplace and how it affects issues of e governance and service delivery. The chapter also reviews IL education in Kenya and how it prepares users in the process of information seeking and their ability to define their own task within the context of their work environment.

2.2 The concept of Information Literacy

“I keep six honest serving-men (They taught me all I knew) their names are what and Why and When and How and Where and Who” This words by Rudyard Kipling (1865-1936).have proved relevant to the concept of information literacy.

A number of definitions and conceptual understandings coalesce around this paradigm.

The literacy paradigm of information literacy is however challenged and contested by other broad approaches which focus on issues concerning the use

of information within social contexts. Kaptizke (2003) asserts that concepts which are focused purely on learning “fall short of adequately explaining and providing for present social, cultural and economic conditions.

The concept of information Literacy is considered as crucially important to enable people to deal with the challenge of making good use of information and communication Technology.

2.2.1 Behaviorist Tradition

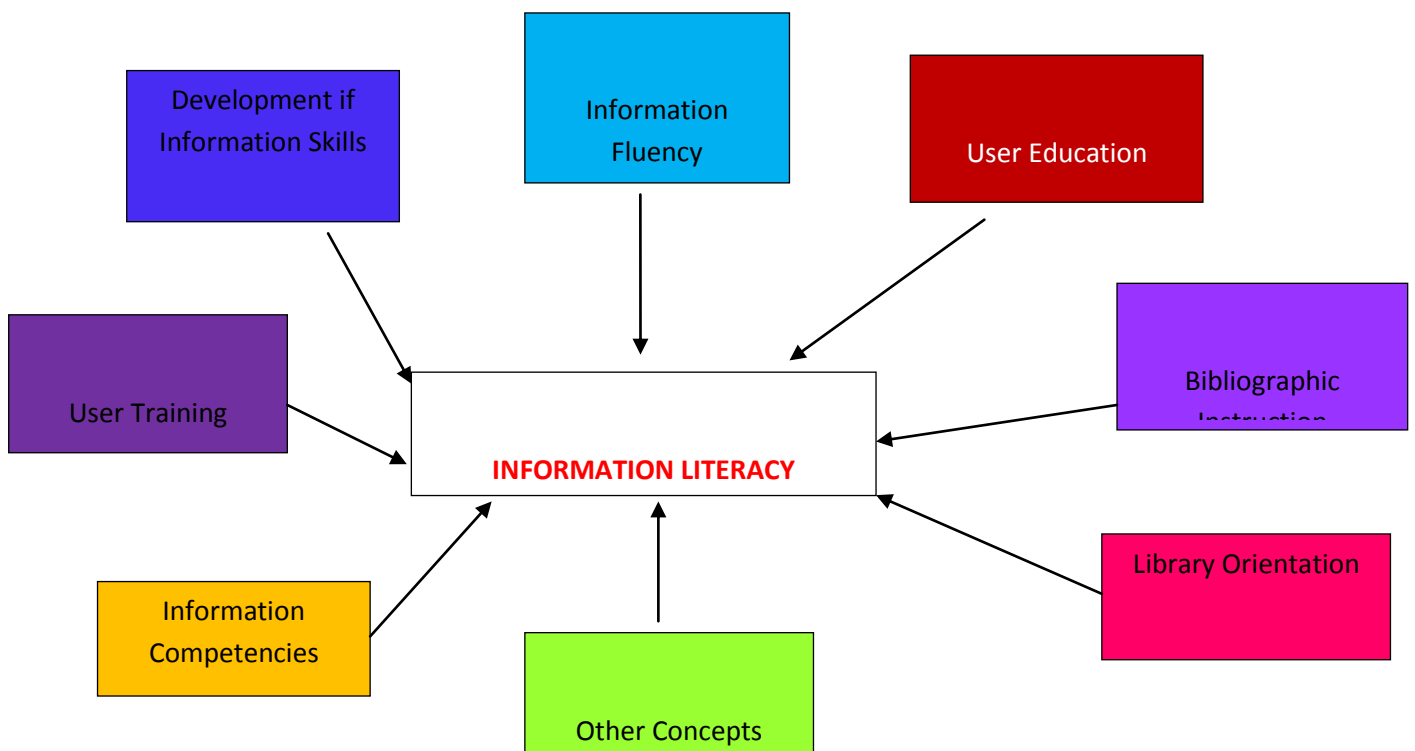
IL as a set of skills and attributes

The most pervasive definition of information literacy relates to the acquisition of skills. Preoccupation with a skills approach to information literacy has its roots in the evolution of the concept of information literacy. While the evolution of a term is not important in and of itself, it often gives fuller meaning to the concept (Doyle, 1994). Information literacy cannot be understood without examining its evolution from library skills instruction and ideas of teaching and learning in libraries. A number of key events shaped the beginning of the process. Although the term information literacy was first used in 1974 by Zurkowski, it is the publication of the *American Library Association Presidential Committee on Information Literacy: Final Report* (1989) which gave rise to the pervasive and much quoted definition of information literacy “To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate

and use effectively the information needed. Ultimately information literate people are those who have learned how to learn.

Another milestone in the foundation of information literacy was the publication of *Outcome measures for information literacy* (Doyle, 1992). This resulted from extensive research using the Delphi technique in which a group of representatives from 46 national organizations contributed to a comprehensive definition of information literacy as well as outcome measures for the concept.

Figure 1: *The concept of Information literacy.*



Source: (Kerr, 2011)

In his book “Understanding Information Literacy: A Primer” Forest Woody Horton, Jr. hopes that these words was remembered;

“Over the course of your lifetime, the more you learn and thereby come to know, but especially the sooner you master and adopt proficient learning skills, habits and attitudes finding out how, from where, from whom and when to search for and retrieve the information that you need to know, but have not yet learned – the more information literate you thereby become. Your competency in applying and utilizing those skills, habits and attitudes will enable you to make sounder and timelier decisions to cope with your personal and family health and welfare, educational, job-related, citizenship and other challenges.”

While we agree with Postman’s (1990) claim that the information age began with the invention of the printing press, we believe that information technology has had a major impact in society during the last few decades. We have moved into a “post-industrial society” where the service sector dominates the economy (Bell, 1973) and to an “informational society” (Castells, 2000) where “information generation, processing, and transmission become the fundamental source of productivity and power” (Castells, 2000).

An information literate person is one who:

- Recognizes the need for information

- Recognizes that accurate and complete information is the basis for intelligent decision making
- Formulates questions based on information needs
- Identifies potential sources of information
- Develops successful search strategies
- Access sources of information including computer based and other technologies
- Evaluates information
- Organizes information for practical application
- Integrates new information into an existing body of knowledge
- Uses information in critical thinking and problem solving (Doyle, 1992)

The behaviorist paradigm became formalized in approaches to information literacy as

Doyle's work also focused on the acquisition of skills as predominant outcomes. "The information user, to be described as information literate, must exhibit behaviors that demonstrate these abilities" (Bruce, 1997).

2.3 Information Literacy and Governance

Information literacy is widely recognized as a foundation for effective engagement with information in academia, the workplace, for citizenship and

for daily living. Information literacy has a profound impact on education, employment and quality of life in today's information-driven and information-rich environment (Watson, 2007).

Substantially documented in government, learning institutions and a range of policy documents (Horton, 2008; Horton & Keiser, 2008; Middle States Commission on Higher Education, 2003; UNESCO, 2008; Wallis, 2005), information literacy has significant ways beyond the doors of academia as it is recognized for "real world" value.

In the present information/knowledge society, information literacy is perceived as a tool for personal empowerment and an instrument of economic progress. A research conducted by Bruce (1999), Cheuk (1998, 1998, 2000), showed that, in the workplace, IL seen as an aid to personal professional development and a strategy for constructing new knowledge and information .

Essential elements of information literacy are embedded in national and international political agendas as it is recognized globally as central to the practice of democracy (ALA, 1989). Various countries have formally embraced information literacy in national policy documents (Menou, 2002).

The global reach of information literacy is emphasized by the work of UNESCO which aims at fostering information literacy worldwide by assisting in the development of national information literacy policies. Currently, the organization provides national and regional information literacy programs and projects in areas including, the Caribbean and Latin America, India, Africa,

and Europe to equip people “to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals” (UNESCO, 2008). Further, the IFLA/UNESCO School Library Manifesto (2006) which documents information literacy as a key goal in education has been translated into over 30 languages.

The objective of introducing **Information Literacy and Lifelong Learning** strategies, missions and vision statements is inevitably to empower people to actively participate in governance and citizenry to better manage and control their own lives, but at the same time respecting cultural diversity in both oral and digital societies as a public good. The special target audiences consist of Government Officers, political and civil society leaders, NGOs, community groups, government agencies (national and international), international and regional foundations, libraries, labour unions, educational institutions, business and industry, and the media.(UNESCO,2012)

2.4 Information Literacy AND ICT capacity in Kenya :The place for IL

The Kenyan government has stated that “the achievement of an information-based society is one of the main priorities... in order to realise national development goals and objectives for wealth and employment creation”

(Poghisio, 2008). Similarly, information literacy is a concept that has been recognised as a development enabler in Kenya. The government considers education the *sine qua non* condition for acquiring ICT skills in order to create dynamic and sustainable economic growth (Wims & Lawler, 2007). The quality and efficiency of ICT application in Kenya can only be achieved by means of capacity building through research and development, which are elements of information skills (Kandiri, 2006). Similarly, it has been recognised that information literacy is essential for national development.

Ayoo and Otike (2002) take a very critical stance and maintain that the formulation of an information policy in Kenya is hampered by the lack of information skills, mainly among top policy makers, which results in making the wrong choices of ICTs. Information policy should be supported by providing education, running literacy programmes and training with the participation of all information stakeholders that include the government as information generating agents, the information professionals as information processors and disseminators and citizens as the information consumers (Kamar, 2006). According to the *The ICT and Education* survey the findings reveal the need to address information literacy when implementing ICTs in education, mainly due to a deficit in human resource capacity.

Recently the Kenyan Government has established initiatives that will enhance information flow in the country. They include the following

2.4 .1 E Governance

Information is regarded as power and foremost it is aimed and utilized to increase knowledge, reduce uncertainties and add value when in used rightly.

It is both a resource and an asset characterised by relevancy, quality and timeliness. Information is an essential part of a nation's resources and therefore it is basic in any decision-making, besides access to it is a basic human right. With the information age controlled by Information and communication technologies it has been assumed that Information is now become more than crucial weapon for acquisition of social, economic and political power in any country.

Recently the Government of Kenya has launched e-Government services , one of the main priorities of the Government of Kenya towards the realization of national development goals and objectives for Wealth and Employment Creation, as outlined in the Kenya Vision 2030. The e-Government Programme was launched in June 2004.

Some of the key online services available through the e-government initiative include:

Application of public service jobs online, Tacking statutes of ID and passports, Exam results and candidate selection, Submission of tax returns, Custom services, Reporting of Corruption, Business licensing e-registry

Other ongoing e-government projects include:

Government shared services, Government Data Centre, Community Learning Information Centres, County connectivity project, Interactive Voice Response System, Government unified messaging system, Capacity building. (“IST-Africa,” n.d.)

Governments are major generators and users of information. This information includes publications that are issued at the government’s expense or published by the authority of a government body. They record the activities and operations of the government. A major characteristic is their originality; most of it is primary information (e.g. statistical findings, proceedings, research findings, reports of appointed commissions).

Others will include ;Government policies, taxation, government expenditure, justice system, citizen rights, consumer protection, education, industry, health, travel information etc.

Government information increases knowledge, reduces uncertainty and adds value. When imparted correctly to its citizens and in such a system growth in government circles is facilitated. (Katonga, 2008)

2.4.2 Information Literacy in the local government workplace

Pandye, G.N (2005) looks at Information and governance in relation to public administration. He says that information for governance should provide a framework within which political, social and economic priorities are based on a broad consensus in society, and the voices of the poorest and most vulnerable are heard in the decision making process regarding the allocation of government resources.

As a development process, information and governance targets improvement in the administration of government and delivery of services to the public. It ensures efficiency, availability, transparency and accountability of government information systems.

To achieve this, a good infrastructure for creating, transmitting, storing and disseminating

County government information was required in place. Information for governance facilitates both production and distribution of government information.

This information is then processed, stored, retrieved for economic, political and social use.

2.5 Information Literacy and Kenya's Vision 2030

As Mohamed Omar argues in the **Sunday Nation article of March 11th 2012**, a fundamental threat that runs through vision 2030 is the desire for Kenya to ultimately become a knowledge based economy. In such an economy, technology, knowledge and skills play a more profound role in the competitive world.

Kenya's Vision 2030 is a national initiative to transform the country into a knowledge based economy. Science and Technology will play a bigger role in the country's socio economic development and help create competitive advantage.

2.6 Paradigm Shifts in the Public Sector

The advent of the Internet, digital connectivity, the explosion and use of e-commerce and e-business models in the private sector are pressuring the public sector to rethink hierarchical, bureaucratic organizational models. Customers, citizens and businesses are faced every day with new innovative e-business and e-commerce models implemented by the private sector and made possible by ICT tools and applications, requiring the same from governmental organizations. Osborne and Gaebler (1992) referred to citizens as customers for governments, since governments need to empower rather than serve, to shift from hierarchy to teamwork and participation, to be mission oriented and customer focused, and to focus on prevention rather than cure. Governments

worldwide are faced with the challenge of transformation and the need to modernize administrative practices and management systems (Tapscott, 1996).

Recently, the public sector has begun to recognize the potential opportunities offered by ICT and the business models to fit with citizens' demands, to offer better services to citizens and to increase efficiency by streamlining internal processes. Tapscott and Caston (1993) argue that ICT causes a "paradigm shift" introducing "the age of network intelligence", reinventing businesses, governments and individuals. Paradigm shifts prevail in the public sector too. The traditional bureaucratic paradigm, characterized by internal productive efficiency, functional rationality, departmentalization, hierarchical control and rule-based management (Kaufman, 1977), is being replaced by competitive, knowledge based economy requirements, such as: flexibility, network organization, vertical/horizontal integration, innovative entrepreneurship, organization learning, speed up in service delivery, and a customer driven strategy.

These new paradigms thrust the shift toward e Government paradigm, which emphasizes coordinated network building, external collaboration and customer services (Ho, 2002).

2.7 Information literacy situations in several governments

In her publication ,Information Literacy Policy Development in Canada: Is It Time?

(Cara Bradley,2013) notes that the responsibility for Information Literacy in Canada has largely been left to the Librarians and Information proffessionals. She goes ahead to advocate for a broader definition that views information literacy as a human right, and to have IL also considered in relationship to the proliferation of other “literacies,” such as digital, web, media, and information technology, that are the subject of increased advocacy and attention from interest groups and educators. She concludes that The relative lack of IL policy development in Canada and the scattered, incomplete nature of those policies that do exist, have left the country in the undesirable position of lagging behind many others in thisarea and failing to meet the information literacy-related policy goals outlined by

Organizations like UNESCO.

Kenya is not far off from the questions that are raised by Cara Bradley. Most Institutions of higher learning in Kenya teach Information Literacy as a unit of the Library. Following closely on the societal and economic needs of a growing nation, it is clear that issues of national policy on information literacy should be addressed.

(Weriner ,Jackman..et al,2013) try to raise awareness of policymakers about the importance of information literacy to achieve societal goals in America. They conclude that Both information literacy and lifelong learning are concepts requiring co-investment by government, educational providers, employers, individuals, and other partners (Business RoundTable, 2001). And that for America to retain an international competitive advantage, they need to have the ability to think critically, problem-solve, communicate effectively, collaborate, and analyze and integrate information (Swallow, 2012).

In their paper, Information Literacy: Government Policies and Initiatives in India

(Deshpande and Dakhole,2011) discuss the concept of Information Literacy, its need and importance and IL standards they also discuss the ICT policies of the government in India and initiatives taken by the government to promote various components of the information literacy such as computer literacy, IT literacy, Including various e-Governance projects of the government which are playing a leading role to make the citizen an information literate.

From this literature India seems to offer great lessons for Kenya when it comes to IL policies and their implementation. There is great evidence of how IL skills connect government and its citizen through information communication and use .

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This Chapter elaborates the research design used and methodologies applied to answer the research questions. It defines the target population, sampling, data collection procedures and data analysis procedures used.

(Teddlie and Tashakkori 2000) define a research methodology as: A broad approach to scientific inquiry specifying how research questions should be asked and answered. This includes worldview consideration and general preferences for designs, sampling logic, data collection and analytical strategies guidelines for making inferences and criteria for assessing and improving quality

3.2 Research Design and Locale

The researcher used the descriptive research method and the survey research design. Survey is a research method by which information is typically gathered by asking a subset of people questions on a specific topic and generalizing the results to a larger population (Babbie 2011).

The selected research method for the study was the case study method. Kumar (2005: 113) defines case study as an approach to studying a social phenomenon through a thorough analysis of an individual case. As a method of inquiry, a case study has the capability of dealing with diversity of evidence

and particularly for explaining why or how events occur (Yin, 1998). It allowed the researcher to discover valuable insights into the key aspects of the contextual issues or conditions under consideration (Blatter, 2008).

A survey research was used. This entails data collection on more than one case and at a single point in time in order to collect both quantitative and qualitative information in connection with two or more variables which are often examined to detect patterns of association (Bryman, 2004).

These methods were considered as the right research design for this study since it was used to collect information on skill levels, how the respondents think about their level of know hoe and allowed description and assessment of awareness from displayed perceptions.

3.2.1 Variables

The measurable indicators for the dependent and independent variables in this research included the level of application of information literacy skills, professional training and information seeking and use knowledge as the independent variables and information literacy skills in county government as a tool of governance as the dependent variable.

3.3 Population

A study population can be defined as the entire collection of cases or units about which the researcher wishes to draw conclusions (Kothari 2004).

Ngulube (2005) emphasized that it is important for the investigator to carefully and completely define the population before collecting samples. Defining the population is necessary in order to determine the feasibility of the field research. It provides the source from which the data is to be collected and also makes it possible for statistical inferences to be made from the target population (Sudman, 1976: 13-14). Babbie and Mouton define a study population as: “The theoretically specified aggregation of the study element” (2001).

The study population for this research was Machakos county Government key focus was the Machakos County Assembly.

This research targeted County government Officers with a focus on administrative officers those running the day to day office operations of the County Assembly.

3.4 Sampling techniques and sample size determination

A sample is a small collection of units, from a much larger study population, which is studied to enable the researcher to make more accurate generalizations about the larger group (Mugenda and Mugenda 2003; Neuman 2006). Sampling is therefore defined as the process of obtaining information about an entire population by examining only part of it (Kothari 2004; Mugenda and Mugenda 2003.)

3.4.1 Sampling Method

Stratified and purposive sampling methods were used. Following the theoretical assumptions of this research, the used a mixed approach both qualitative and quantitative study.

A sample size was drawn using the rule of thumb (Neuman, 2011). In this method Neuman describes that for small populations (under 500), a large sampling ratio (about 30 percent) or 150 people is needed, while for a large population (over 150,000); one can obtain equally good accuracy with a smaller sampling ratio (1 percent) 1,500 people. The method gives approximate samples with practical limitations also playing a role.

Purposive sampling technique was used to select Machakos town among the 8 constituencies that constitute Machakos County. Machakos town was selected because it serves as the administrative town for the county. All county departments have their headquarters in the county offices.

Machakos town was then stratified into three sections namely; i) County assemblies, ii) county executive committees iii) county public service, as laid out in the Kenyan Constitution Purposive sampling was used to select Machakos County Assembly since from the preliminary study there evidence of an operational Library which is the main backbone for nay information literacy

Machakos county assembly has six administrative departments with staff profile of Fifty Six administrative staff attached to various departments.

The researcher purposively selected departments that showed evidence of information us in their day to day operations. Therefore the researcher selected five departments, targeting to engage 32 respondents as a representative sample derived from the above rule.

Lastly simple random sampling was used to select officers from the Machakos County Assembly as respondents for this study

3.5 Research instruments

3.5.1 Types of Research Instruments used

Data for this study was collected using;

Questionnaire- Questionnaires as defined by Babbie and Mouton (2001) are a collection of questions which enable the researcher to determine the extent to which a respondent perceives a particular issue.

Interviews- According to Mugenda and Mugenda, 1999 an interview schedule is a set of questions that the interview asks when interviewing respondents in a research study. The questions may be structured or unstructured.

The application of more than one instrument in data collection is considered vital as it will provide checks and balances with regard to shortfalls characterized by each of the data-gathering instruments.

The section 3.6 below provides information on data collection methods that were used in the study.

3.5.2 Validity and Reliability

Validity refers to the extent to which research results can be accurately interpreted and generalized to other populations. According to Kasomo, 2006 There are three Kind of Validity, namely content related validity which refers to the relevant use of instruments, Construct-related validity which refers to a general idea formed in the mind that is the extent to which scores on an instrument can be accounted for by a construct explanation, and the criterion-related validity which refers to the extent to which scores on the instrument relate to external independent variables.

Reliability is the measure of the degree or which the instrument yields consistent data after repeated trials (Mugenda and Mugenda, 2003)

To ensure reliability the research included three precautions; the researcher purposively selected the section of the Machakos County Government with evidence of information platforms and operational use taking into consideration the population of officers in this section. This ensured a reliable representation of the County government as a case for this study. The researcher also pre-tested the research instruments to ascertain whether they would produce the expected results. Thirdly in the formulation of the questionnaires and the interview schedule, the researcher re-visited the objectives in order to keep within the focus of the study.

3.6. Actual Data Collection

3.6.1 Ethical considerations

The researcher explained the purpose of the study to the respondents. This was done to ensure that the respondents give an informed consent of taking part in the study. Furthermore, this ensured cooperation from the respondents and helped to avoid any suspicion on the part of the study subjects.

The researcher insisted to adhere to voluntary participation of respondents in giving in as in **3.6.3**

3.6.2 Research protocol and Itinerary

The outlined method of data collection involved the following

The researcher obtained a letter of introduction from the Library and Information Department at Kenyatta University. Then proceeded to the Machakos County Headquarters to seek authorization and establish a rapport with the county officers who are part of the target population

The researcher pre-tested the questionnaire with a small representative sample to detect the appropriateness of the instrument. The results of the pretest showed that some questions were not very clear to respondents and needed to be reworked. However most of the questions were clear.

The questionnaires were personally administered by the researcher using a 'drop and pick' method. An information sheet explaining the purpose of the study and an informed consent form accompanied each questionnaire.

Adequate time was accorded each respondent to obtain appropriate answers to the questions.

3.6.3 Data Collection

Data collection refers to gathering of specific information aimed at Proving or refuting some facts. (Kombo and Tromp, 2006)

3.6.1.1 Questionnaires

The questionnaire was used to collect data from the County Officers. It was used to collect information on the information Literacy skills of the officers.

The questionnaire was self-administered and was delivered both in hard copy

.The researcher used

- ❖ Open-ended questions: To enable the respondents provide their views through a provision made for written responses. This question structure is mostly used to study opinion, the advantage is that the respondent is not compelled to adapt to pre-conceived answers

- ❖ Closed questions: here a list of answers is provided from which the respondent selects the one that closely represent their views.

The advantages of using questionnaires is that they are often standardised therefore data can be systematically collected and easily analysed. At the same time, because questionnaires are voluntary and anonymous, they tend to provide more honest responses from participants

Questionnaires were administered to the County Government Officers (Machakos County Assembly) The researcher personally administered the questionnaires. For purposes of this research a questionnaire was designed with open ended questions and closed questions

3.6.1.2 Expert Interviews

Semi-structured interviews were used to collect data from a representative of the Department of Public Service, Labour and Information, Communication & Technology. Interview protocols for categories of the respondent were developed. These interviews collected information on the extent of IL integration and policy issues which may hinder or facilitate IL skills in the county government. The interviews were tape recorded (With the permission of the interviewee) and later on transcribed to facilitate qualitative data analysis.

The collected data from the field was edited, coded and classified into categories. The data was later tabulated and presented using descriptive statistics in form of frequencies, graphs and charts. Qualitative information that was collected was presented in a narrative form, citing the voices of the participants where necessary and where possible it was organized thematically.

3.7 Data Analysis

Data analysis is a process of bringing order, structure and meaning to the mass of collected data by turning the data into information which can be used to develop concepts, theories, explanations or understanding (Gorman & Clayton, 2005: 206; Lancaster, 2005: 157). Data analysis involves an attempt by the researcher to describe and reconstruct the data in a recognisable form for the people being studied (Maykut & Morehouse, 1994: 122). Data analysis is performed on a given data set of data with an objective of extracting the required information in an appropriate form such as diagrams, reports or tables. The researcher incorporated both manual and electronic data processing procedures. Descriptive and inferential statistics were used for data analysis and testing of the study hypotheses.

The researcher used SPSS (version 21) data analysis software. Simple linear regression analyses were used to measure the strength of the relationship between the dependent and independent variables. The regression coefficients were interpreted and coefficient of determination interpreted. The Study results were presented in frequency table, descriptive statistics tables and regression model shown below.

$$Y = a + B_1X_1 + B_2X_2 + B_3X_3 + \epsilon$$

Where;

Y = Information Literacy as a core tool for governance

X_1 = Application of IL Skills

X_2 = Training and Competence

X_3 = Challenges in Accessing e Government Information

a = Constant

ε = Std. Error of the Estimate

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

The chapter discusses the findings and discussion of study results. The study sample was comprised of all the 32 staff from the Machakos County Government administrative officers who manage day to day running of Machakos County Assembly operations. These were issued with questionnaires, 31 filled and returned their questionnaires.

4.1.1 Response Rate

The study administered 32 questionnaires. A total of 31 questionnaires were properly filled and returned response rate of 96.9% can be used to establish the research objectives and answer the research questions According to Mugenda & Mugenda (2003), this implies that the 96.9% response rate was very appropriate rate.

4.2 General and Demographic Information

This section presents findings of the respondents' background information of importance in this study which included: gender, age bracket and experience in the field.

4.2.1 Gender

The gender of respondents was determined and presented on Table 4.1.

Table 4.1: Gender

	Frequency	Percentage (%)
Male	21	67.7
Female	10	32.3
Total	31	100.0

The findings on gender presented on table 4.1 shows that an overwhelming majority of the County Government Officers was of the male gender. They formed 67.7% of the staff since the study used a census technique in the five departments studied.

4.2.2 Length of service

The study sought to establish the work experience of the respondents by establishing the length of service in the sector. The length of service for the respondents were grouped into three categories; 0-2 years, 2-4 years, above 4 years. The length of service distribution of County Administrative Officers in County Assembly is as shown on the findings of Table 4.2.

Table 4.2: Length of service

Age bracket	Frequency	Percentage (%)
0-2 years	11	35.5
2-4 years	7	22.5
Above 4 years	13	42.0
Total	31	100.0

Majority of the officers (42.0 %) have worked for above 4 years as shown on table 4.2, another 35.5% had worked for between 0-2 years.

4.2.3 Age bracket

The study further sought to establish the age bracket of the officers managing the County Assembly operations. The age bracket levels were categorized in four groups: 18-27 years, 28-37 years, 38-47 years and above 48 years.

As revealed by the findings on the age bracket level of officers in the county assembly, majority were of age bracket 28-37 years (32.2%), followed by 18-27 years bracket (25.8%), thirdly age bracket above 48 years (22.6%) and fewer were of 38-47 years bracket (4.1%) as presented on the findings of table 4.3.

Table 4.3: Age bracket

	Frequency	Percentage (%)
18-27 years	8	25.8
28-37 years	10	32.2
38-47 years	6	19.4
Above 48 years	7	22.6
Total	31	100.0

4.3 Descriptive Findings and Discussions

In this section, the descriptive statistics for study variables are discussed. The study was guided by effect of level of application of information literacy skills, professional training and information seeking and use knowledge as the independent variables and information literacy skills in county government as the dependent variable.

Analysis of the level of application of information literacy skills

The study intended to know how communication skills, writing skills, evaluative skills, critical thinking skills, analytical skills, research skills and problem solving skills are measures of application of information literacy skills in Machako's County

Government. These statements were ranked on a 5 point Likert scale ranging from “5- most applied” to “1- least applied”. Table 4.4 presents these findings.

Table 4.4: Mean and Standard Deviation of application of information literacy skills

	N	Minimum	Maximum	Mean	Std. Deviation
Communication skills	31	2	5	3.82	.822
Writing skills	31	2	5	3.74	.834
Evaluative skills	31	2	5	3.97	.666
Critical Thinking skills	31	1	5	3.66	.786
Analytical skills	31	2	5	3.44	.667
Research skills	31	2	5	3.98	.865
Problem Solving skills	31	2	5	3.48	.723
Average performance	31	1	5	3.782	.567

Respondents agreed (mean =3.82) that communication skills are moderately applied. Respondents also agreed (mean = 3.74) that writing skills are applied. The evaluative skills was found to have improved by the respondents (mean =3.97). The respondents also agreed that critical thinking skills level of application is satisfactory (mean=3.66). It was unclear whether analytical skills and problem solving skills

levels of application were satisfactory or not with means 3.44 and 3.48 respectively, however research skills were well applied (mean =3.98). The standard deviations were 0.822, 0.834, 0.666, 0.786, 0.667, 0.865 and .723. These data were not far from zero hence showing that the data were also very close to the mean of respective indicators.

4.3.2 Analysis of professional training & competence in service delivery

The study intended to know how tool literacy, resource literacy, research literacy and emerging technology literacy are measures of training and competence in service delivery as an assessment of information literacy skills in Machako’s County Government. These statements were ranked on a 5 point Likert scale ranging from “5- most applied” to “1- least applied”. Table 4.5 presents these findings.

Table 4.5: Mean and Standard Deviation of training & competence in service delivery

	N	Minimum	Maximum	Mean	Std. Deviation
Tool literacy	31	1	5	3.944	.9121
Resource literacy	31	1	5	3.918	.8590
Research literacy	31	1	5	4.000	.9363
Emerging technology literacy	31	1	5	3.452	.7453
Average performance	31	1	5	3.856	.6987

Respondents agreed (mean = 3.944) that tool literacy has an effect on competence on service delivery. Resource literacy was found to have an effect on service delivery by the respondents (mean = 3.918). The respondents also agreed that research literacy training effect affect positively service delivery (mean= 4.000). Respondents were indifferent on emerging technology competence of officers (mean =3.452). Overall training was found to have an effect on the performance of the government officers by respondents (mean =3.856) the standard deviations were .9121, .8590, .9363, .7493 and .6987. These data were not far from zero hence showing that the data were also very close to the mean of respective indicators.

Analysis of challenges experience in accessing e government information

The study intended to know to how the internet accessibility, limited access to computers, poor ICT skills, difficult in finding relevant government information and lack of time affect county officer in information seeking and use. These statements were ranked on a 5 point likert scale ranging from “5- very high” to “1-least”. Table 4.6 presents these findings.

Table 4.6: Mean and Standard Deviation of experience in e government information

	N	Minimum	Maximum	Mean	Std. Deviation
Internet accessibility	31	1	5	1.0068	.91189
Limited access to computers	31	1	5	1.0822	.91197
Poor ICT skill	31	1	5	3.8055	.52807
difficult in finding relevant government information	31	1	5	3.9876	.65433
lack of time	31	1	5	4.2355	.45672
Average performance	31	1	5	3.5456	.56435

Respondents rated least do they experience challenge with internet accessibility and limited access to computers returning means of 1.0068 and 1.0822 respectively. The respondents rated high on poor ICT skills, difficult in finding relevant government information and lack of time as challenges experienced by county officers with means of 3.8055, 3.9876 and 4.2355 respectively. Overall challenges were evident effecting on the officers information seeking and use. Average performance by respondents was mean= 3.5456. The standard deviations were .91189, .91197, .52807, .65433 and .45672. These data were not far from zero hence showing that the data were also very close to the mean of respective indicators.

4.4 Inferential Analysis Results

Inferential analysis is used to determine whether there is a relationship between an intervention and an outcome, as well as the strength of that relationship. It uses statistical test to see if a pattern observed is just due to chance or is due to the program or intervention effects.

4.4.1 Influence of the application of information literacy skills on governance

Table 4.7: Influence of the application of information literacy skills on governance

		IL Skills as Application of IL Skills		IL Skills as a Tool of Governance
Application of IL Skills	Pearson Correlation	1		.256*
	Sig. (2-tailed)			.029
	N	31		

*. Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.7, application of IL Skills has r-value of .256 indicating a significant positive relationship between application of IL Skills and IL Skills as a Tool of Governance. This is satisfactory to the first objective of the study: to find out evidence of knowledge of information literacy, information skills and practices in the governance environment. The p values (.029) are below .05 thus leads to rejection of null hypothesis that there is no significant relationship between application of IL

skills and IL skills as a tool of governance, at 5% level of significance. Therefore application of IL skills is positively correlated to good governance.

4.4.2 Influence of training & competence in service delivery on governance

Table 4.8: Influence of training & competence in service delivery on governance

		IL Skills as a	
		Training &	Tool of
		Competence	Governance
Training &	Pearson	1	.308*
Competence	Correlation		
	Sig. (2-tailed)		.008
	N	31	

*. Correlation is significant at the 0.05 level (2-tailed).

As shown in the Table 4.8 Training and Competence has r-value of .308 indicating a positive relationship between Training & Competence and IL Skills as a tool of governance. This is a satisfactory to the second objective of the study; to determine the extent to which professional equips public officers with competence for service delivery and governance. The p-values .008 is below .05 thus led to rejection of the null hypothesis that training and competence does not influence governance, at 5% level of significance. Therefore training and competence is positively correlated the county governance.

4.4.3 Influence of challenges in accessing e government information on governance

Table 4.9: Influence of challenges in accessing e government information on governance

		Accessing e Government Information	IL Skills as a Tool of Governance
Accessing e Government Information	Pearson Correlation Sig. (2- tailed)	1	.090*
	N	31	31

*. Correlation is significant at the 0.05 level (2-tailed).

As shown in the Table 4.9 Challenges in Accessing e Government Information has r-value of .090 indicating a positive relationship between Challenges in Accessing e Government Information and IL Skills as a Tool of Governance. This is a satisfactory to the third objective of the study; to justify connection between information literacy education and work related information literacy knowledge, skills and practices. The p-values .048 are below .05 thus led to rejection of the null hypothesis that challenges in accessing e government information does not influence the county governance, at

5% level of significance. Therefore a challenge in accessing e government information is positively correlated to county governance.

4.5 Regression Analysis

Multivariate regression analysis was used to determine the significance of the relationship between the dependent variable and all independent variable pooled together. This analysis was used to answer the questions; how do the independent variables influence the dependent variable collectively; to what extent does each independent variable affect dependent variable in such a collective set-up, and; which are the more significant factors? Table 4.10 gives the model summary of the multiple linear regressions.

Table 4.10: Multiple linear regression analysis model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826 ^a	.709	.701	.311

a. Predictors: (Constant), Application of IL Skills, Training and Competence, Challenges in Accessing e Government Information

b. Dependent Variable: Information Literacy as a core tool for governance

The results in Table 4.10 showed that the value obtained for R, which is the model correlation coefficient was R=.826 which is higher than any zero order value in the

table. This indicates that the model improved when more variables were incorporated when trying to analyze the determinants of factors in performance of Information Literacy as a core tool for governance. The adjusted r^2 value of $r^2=0.701$, also indicated that the multiple linear regression model could explain for approximately 70.1% of the variation in the determinants of Information Literacy as a core tool for governance. To answer the question about which of the independent variables is more important in influencing Information Literacy as a core tool for governance, the beta value and the results of this are summarized in Table 4.11

Table 4.11: Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	Sig.
(Constant)	3.386	.444		.000
Application of IL Skills	.095	.088	.152	.038
Training and Competence	.152	.084	.251	.037
Challenges in Accessing e Government	.142	.096	.171	.143

Information

a. Dependent Variable: Information Literacy as a core tool for governance

From the regression model in Table 4.11, the regression equation was obtained. Using the unstandardized beta coefficients, the following regression equation was developed.

$$Y = 3.386 + 0.095X_1 + 0.152X_2 + 0.142X_3 + \epsilon$$

From the full regression model, the beta values were obtained which explain the regression equation. The standardized beta coefficients give a measure of influence of each variable to the model. Regarding the influence of factors affecting Information Literacy as a core tool for governance, the study revealed that adoption of Training and Competence had the greatest influence on performance on Information Literacy as a core tool for governance ($\beta=.152$), followed by Challenges in Accessing e Government Information ($\beta=.142$), finally the least influence on performance was Application of IL Skills ($\beta=.095$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter looked at descriptive and inferential statistics compiled and then drew conclusions from summary findings and raised recommendations that are pertinent to Information Literacy as a core tool for governance.

5.2 Summary

The study was guided by knowledge of information literacy; professional training, information literacy education and work related information literacy and existing policies in the County as the independent variables and Information Literacy as a core tool for governance as the dependent variable. The statements were ranked on a 5 point Likert scale.

The first objective was to find out evidence of knowledge of information literacy, information skills and practices in the governance environment. The finding on application of IL Skills had r-value of .256 indicating a significant positive relationship between application of IL Skills and IL Skills as a Tool of Governance. The p values (.029) were below .05 thus led to rejection of null hypothesis that there is no significant relationship between application of IL skills and IL skills as a tool of governance, at 5% level of significance. Therefore application of IL skills was positively correlated to good governance.

The second objective was to identify the extent to which professional training equips public officers with competencies for service delivery. Training and Competence had r-value of .308 indicating a positive relationship between Training & Competence and IL Skills as a tool of governance. This was a satisfactory to the second objective of the study with a p-values .008 being below .05 thus led to rejection of the null hypothesis that training and competence does not influence governance, at 5% level of significance. Therefore training and competence was positively correlated the county governance.

The Third objective was to justify the connection between information literacy education and work related information literacy knowledge, skills and practices. The challenges in accessing e government information had r-value of .090 indicating a positive relationship between accessing e Government Information and IL Skills as a Tool of Governance. This is a satisfactory to the third objective of the study with p-values .048 being below .05 thus led to rejection of the null hypothesis that challenges in accessing e government information does not influence the county governance, at 5% level of significance. Therefore accessing e government information is positively correlated to county governance.

5.3 Conclusions

This study has resulted in three (3) main conclusions as follows. Firstly, based on the findings that application of IL skills was positively correlated to good governance, it is logical to conclude that Information literacy aims to develop both critical understanding and active participation. It enables county administrators to interpret and make informed judgments as users of information sources; but it also enables them to become producers of information in their own right, and thereby to become more powerful participants in society. There is need for custom made programs for county administrative officer's across various county government sectors should be put in place to address needs felt for good governance skills and to enhance personal and professional effectiveness to inculcate a feeling of ownership towards jobs, enhance self-esteem, build team spirit and leadership qualities. IL Skills enhances interactive methodology with unique peer interactions, hands on computer and problem solving.

Secondly, based on the findings that training and competence was positively correlated the county governance. It is logical to conclude that IL goes beyond purchase and installation of ICT equipment and hoping the staff will use it naturally. Counties should not take for granted that everything will be done properly, which is often the case, and then, subsequently, neglect to follow up on the staff IL skills for operations. As information is increasingly codified in digital forms, new skills are needed to operate the technology to search for,

organize, manage information and use it to solve problems and create new knowledge and cultural products. County administration should be aware of complex technologies that need to be tailored to the needs and culture of county officers and that they must be installed, customized and operated by properly trained personnel.

Thirdly, based on the findings that accessing e government information is positively correlated to county governance, it is logical to conclude that Information literacy is essential for good governance and represents a basic condition for any successful e-governance programme. Information literacy is an intellectual framework and a social process for understanding, finding, evaluating, communicating and using information at activities which may be accomplished in part by fluency with information technology, in part by sound investigative methods, but most important, through critical discernment and reasoning which the e government portal depicts the need for the government to promotes democracy and good governance.

5.4 Recommendations

After drawing the aforementioned inferences, the researcher deemed it rational to put across a number of pertinent recommendations.

5.4.1 Policy Recommendations

- i. The researcher recommended that the county government should adopt county administrative empowerment program through information,

media and ICT literacy as a prerequisite for harnessing IL skills to fostering equitable access to information and knowledge. Information literacy enhances the pursuit of knowledge hence will equip county administrators with the skills and abilities for critical reception, assessment and use of information in their professional and personal lives.

- ii. The county government should support professional development for education, library, information, archive and human services personnel in the principles and practices of Information Literacy and Lifelong Learning.
- iii. The county government should recognize Information Literacy as key elements for the development of generic capabilities which must be demonstrated for accreditation of training programs and include Information Literacy in the core and continuing education of information professionals, educators, economic and government policymakers and administrators, as well as in the practice of advisors to the business, industry and other sectors.

5.4.2 Recommendations for further research

The researcher recommended the following areas for further study:

An analysis of IL as an important advocacy tool for democracy and good governance, assessment of IL in ensuring that staff are well versed in local political contexts and how government systems work.

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APPENDIX I: Questionnaire

Consent Form

Part 1: Information Sheet

I am Mary Maina a postgraduate student at Kenyatta University, registration number **e65/ce/22998/201**, e-mail address mmainat22@gmail.com, supervised by Dr. Daniel Muthee: dwambiri@yahoo.com. I am carrying out a research titled **“Assessment of Information Literacy Skills in County Governments: A Case Study of Machakos County”**

I am going to give you information about all what the research entails and invite you to be part of this research as a respondent. If you have any questions later, you can ask.

Purpose of research

This research focuses on information as a tool for governance. With the new mode of governance, it is important that both public officers and the common public are able to use information at their disposal to engage in more meaningful development especially at the county level. This study therefore seeks to assess the current situation in order to create a platform for Information Literacy policies, programs and trainings where need be.

The information that you give during this research will be kept confidential. Information about you that will be collected during the research will be put away and no one but the researcher¹ will be able to see it. Any information on you will

¹ Researcher; The person carrying out the study

have a number on it instead of your name for confidentiality purposes. You can ask any questions regarding the study or your participation in this study.

Part 2: Informed Consent Form

I have read the foregoing information. I have had the opportunity to ask questions about it and any questions that have been asked have been answered to my satisfaction.

I consent voluntarily to participate as a respondent in this research.

Name _____ of _____ participant:

(optional)_____

Signature of participant: _____

Date:

Questionnaire

Section A: Basic data about yourself

Name (<i>this is optional</i>)
Date of birth(Year)
Designation
Date of appointment (Year)
Highest Educational qualification

Section B: Your job

What tasks do you perform in a typical Working day?
Which parts of your job do you find most difficult?

Section C: Underlying Knowledge

You are requested to work through the table below and tick the competences you believe you possess, according to the definitions laid down in the following paragraphs. The list is based on the competences defined in the *Public Service Competency Framework (2011)* and you may find it helpful to access the details, which are available on the web www.publicservice.go.ke

Should you believe you have other relevant competences not on the list, please add them in the space at the end.

Please note that it is extremely unlikely that anybody will be competent in every area, and the last column allows you to indicate matters that are not relevant or applicable to you.

Q.1. what is your knowledge of the following?

(Please tick where applicable)

1-Use column 1 if you have acquired your knowledge through a formal educational process, such as attending a course

2-Use column 2 if you have limited knowledge, informally obtained for

		LEVEL	1	2	3
I.	National government structures				
II.	County government structures				
III.	Government decision-making processes				
IV.	Freedom of information Bill				
V.	Kenya open data initiative				
VI.	Government of Kenya portal				
VII.	Mawassiliano bulletin				
VIII.	Pasha centres				
IX.	Project management and project management systems				
X.	Management Information System (MIS) and formal reporting systems				

example, by reading an Article

Q.2. How proficient are you in the following core competency areas in your daily office operations?

Level 1-Basic Knowledge: You have a common knowledge or an understanding of basic techniques and concepts.

Level 2-Limited experience: You have the level of experience gained in a classroom and/or experimental scenarios or as a trainee on-the-job.

Level 3-practical application: You are able to successfully complete tasks in this competency as requested. Help from an expert may be required from time to time, but you can usually perform the skill independently.

Level 4-Applied theory: You can perform the actions associated with this skill without assistance. You are certainly recognized within your immediate organization as "a person to ask" when difficult questions arise regarding this skill.

Level 5-Expert: You are known as an expert in this area. You can provide guidance, troubleshoot and answer questions related to this area of expertise and the field where the skill is used

(Please tick where applicable. You can tick more than one option)

N- Not Applicable- You are not required to apply or demonstrate this competency. This competency is not applicable to your position.

LEVEL		1	2	3	4	5	N
I.	Analytical, Problem Solving and Decision Making						
II.	understanding of the project management cycle quality assurance systems that guarantee expected results						
III.	ability to prepare quality reports, briefs, proposals, minutes, and memoranda						
IV.	Comprehensive knowledge of the work practices, processes and procedures relevant to the your office						
V.	thorough knowledge and understanding of issues pertaining to specific area of ministry policies						
VI.	Knowledge of the Public Finance Management Act,2012						

Q.3. In which of the following research skills do you feel you have developed proficiency in from training at the tertiary level of your education (undergraduate, graduate, post graduate)

Communication skills	
Writing skills	
Evaluative skills	
Critical thinking skills	
Analytical skills	
research skills	
Problem solving skills	

Q.4. How confident are you in using ...

I.	Word processing using programs such as MS word	1	2	3
II.	Creating a presentation with text and images such as power point			
III.	Working with spread sheets to create charts and tables such as Excel			
IV.	Connecting and Installing devices such as printers or modems			
V.	Detecting and solving computer programmes			
VI.	Using an internet search engine such as Google			
	Using email to communicate with colleagues			

Q.5. What challenges have you experienced while using available government information platforms such as the Kenya e government portal ?

.....
.....
.....
.....

Thank you,

Mary Maina

Department of Library and Information Science

Kenyatta University

Email:mmainat22@gmail.com

APPENDIX II: Expert Interview Schedule

Expert Interview Schedule

Please put a tick mark in the appropriate box where required.

Q.1 Gender

a) Male

b) Female

Q2. For how long have you held the current position?

a) 0-2 years

b) 2-4 years

c) Over 4 years

Q3. Age bracket

a) 18-27 years

b) 28-37 years

c) 38-47 years

d) Above 48 years

Q.4 Describes your role in the Machakos County Library?

Q.5 Do you subscribe to any print or electronic databases in your Library

(If YES please mention these databases)

.....
.....

Q.6 Rate the level of application of information literacy skills (*Tick on your level of rating where 1 is least Applied and 5 Most Applied*)

	RATINGS				
	5	4	3	2	1
a. Communication skills					
b. Writing skills					
c. Evaluative skill					
d. Critical thinking skill					
e. Analytical skills					

Q7. Rate your level of Professional Training & Competence in service delivery (*Tick on your level of rating where 1 is least Applied and 5 Most Applied*)

	RATINGS				
	5	4	3	2	1
a. Tool literacy					
b. Resource literacy					
c. Research literacy					
d. Emerging technology literacy					

Q.8 Rate the level of Challenges you experience in accessing e government information (*Tick on your level of rating where 1 is least and 5 very high*)

	RATINGS				
	5	4	3	2	1
a. Internet accessibility					
b. Limited access to computers					
c. Poor ICT skills					
d. Difficulty in finding relevant government information					
e. Lack of time					

f. If others; Please

specify.....

.....

Q.9. On a scale of 1-5 rate information literacy skills in county governments. *(Tick on your level of rating where 1 is poor and 5 excellent)*

	RATINGS				
	5	4	3	2	1
Level of information literacy skills					

Q.10 In your opinion in what areas of information literacy do you believe training and collaborations are needed to improve skills for County Government Officers in the access and use of information?

.....

Q.11 Any other comments and /or suggestions about IL skills of County Government officers?

.....

APPENDX III: Activity Schedule

ACTIVITY	Aug 2013	Jan 2014	Feb 2014	March 2014	April 2014	May 2014	July 2015	Jan 2015	April 2015	May 2015
Background & Problem formulation										
literature review										
Methodology										
proposal submission , Defences and corrections										
Piloting										
data collection										
data analysis										
Project writing										
Project submission and corrections										

APPENDIX IV: Budget

Activity	Research input	Unit	Unit cost	Subtotal
Literature review	Internet bundles		1000	1000
Testing and pre-testing of research tools	Typesetting	50	30	1500
	Printing of proposal copies	6	500	3000
	Binding of proposal copies	6	80	480
	Stationeries			1200
				5000
	Fuel expenses	5	10	50
	Printing of questionnaires	54	3	162
Data collection	Photocopying questionnaires			10000
	Fuel expenses			1620
	Printing of questionnaires	162	10	600
Data analysis	Photocopying questionnaires	200	3	
	Printing papers	1 ream	500	500
Thesis Writing	Data entry and analysis			6000
	Cartridge	1	4000	4000
	Printing papers	2 ream	500	1000
	Travelling to meet supervisor	6	1000	6000
	Printing of final report	600	10	6000
	Binding of report(hard binding)	6	500	3000
	Sub total			51,112
	Contingency (10%)			5111.2
	Grand Total			56,223

APPENDIX V: Letter From Kenyatta University Authorizing Data Collection



KENYATTA UNIVERSITY
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
P.O. Box 43844, 00100
NAIROBI, Kenya
Tel: 811622 Ext. 3525
Fax: 811242/811575
e-mail: chairman-infoscience@ku.ac.ke

17th September 2014


TO WHOM IT MAY CONCERN

MARY W. MAINA - E65/CE/22998/2010

This letter serves to introduce the above named who is a Master of Library & Information Science student in this Department who is interested in carrying out research on "Assessment of Information Literacy Skills in County Governments: A Case Study of Machakos County".

Any assistance accorded to her in pursuit of this study will be greatly appreciated.

Thank you.


DR. DANIEL W. MUTHEE
CHAIRMAN
DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

DWM/enm



28/11/2014