

**SELECTING INSTRUCTIONAL MEDIA IN FUNCTIONAL ADULT
LITERACY PROGRAMMES IN LUSAKA DISTRICT: CHALLENGES
AND POSSIBLE SOLUTIONS**

BY

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**A Dissertation submitted to the University of Zambia in partial fulfilment of
the requirement for the award of the Degree of Masters of Education in Adult
Education**

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DECLARATION

I, Levison Banda, do declare that this dissertation represents my own work and that it has not in part or in whole been presented as material for award of any degree at this or any other university. Where other people's work has been used, acknowledgment has been made.

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APPROVAL

The University of Zambia approves the dissertation of Levison Banda as fulfilling part of the requirements for the award of the degree of Master of Education in Adult Education.

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Supervise :..... Signature: Date:

ABSTRACT

The study investigated the Selection of Instructional Media in Functional Adult Literacy Programmes in Lusaka District. It sought to establish the criteria used by facilitators when selecting the instructional media in Functional Adult Literacy programmes in Lusaka District as well as the challenges they encountered in order to provide possible solutions to the identified challenges. The study was necessary due to little information on how instructional media were being utilized in Functional Adult Literacy programmes in Lusaka District. The study was guided by three objectives: (i) to identify the criteria used by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District; (ii) to establish the challenges faced by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District; and (iii) to determine solutions to the challenges faced by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District. A case study design was employed by the study Data were collected using semi-structured interviews. The data were analysed using content and thematic analysis. The study sample included 16 facilitators from the eight sub-centres in Lusaka District. The study established that Instructional media for Functional Adult Literacy programmes in Lusaka District were selected on the basis of availability. The major challenges faced by facilitators were; lack of funding, infrastructure and types of learners. The other challenge was that the facilitators lacked training on how to use advanced instructional media like computers. The facilitators also bemoaned the lack of standardized curriculum for functional adult literacy programmes. The study recommends that the government should allocate more funds towards the procurement of Instructional Media for Functional Adult Literacy and also consider providing proper incentives for the as a way of motivating them. The government should also provide training opportunities for facilitators in order to keep them up-to-date with the recent trends in the field of Functional Adult Literacy.

Key Words: Instructional Media, Functional Adult Literacy.

DEDICATION

I dedicate this work to my mother and father who endured several hardships to have me go to school. And to my dear wife Florence and my daughters Faith, Precious, Melody and Ruth who persevered my absence when I was at the University of Zambia undertaking my studies.

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TABLE OF CONTENTS

| | |
|--|-------------|
| COPYRIGHT | i |
| DECLARATION | ii |
| APPROVAL | iii |
| ABSTRACT | iv |
| DEDICATION | v |
| ACKNOWLEDGEMENT | vi |
| LIST OF APPENDICES | xi |
| ACRONYMS AND ABBREVIATIONS | xii |
| DEFINITION OF CONCEPTS | xiii |
| | |
| CHAPTER 1: INTRODUCTION | 1 |
| 1.1 Overview | 1 |
| 1.2 Background of the study | 1 |
| 1.2.1 Basic literacy programme | 5 |
| 1.2.2 Functional Literacy (Agriculture) | 5 |
| 1.2.3 Functional Literacy (Health and Nutrition) | 5 |
| 1.2.4 National Literacy Campaign | 6 |
| 1.2.5 Use of Instructional Media in Functional Adult Literacy..... | 7 |
| 1.3 Statement of the problem | 9 |
| 1.4 Purpose of the study..... | 9 |
| 1.5 Objectives of the study..... | 9 |
| 1.6 Research Questions | 10 |
| 1.7 Significance of the study | 10 |
| 1.8 Theoretical Framework | 11 |
| 1.9 Delimitations of the study | 13 |
| 1.10 Organization of the dissertation..... | 14 |
| 1.11 Summary of Chapter One..... | 14 |

| | |
|---|-----------|
| CHAPTER 2: LITERATURE REVIEW | 15 |
| 2.1 Overview | 15 |
| 2.2 Concept of instructional media..... | 16 |
| 2.3 The role of Instructional materials in teaching..... | 18 |
| 2.4 Properties of instructional media..... | 21 |
| 2.5 Origins of instructional media in teaching | 24 |
| 2.6 Types of Instructional Media in Functional Adult Literacy..... | 25 |
| 2.6.1 Visual aids..... | 25 |
| 2.6.2 Print Material | 27 |
| 2.6.3 Chalk and Chalkboard | 27 |
| 2.6.4 Realia | 28 |
| 2.6.5 Still Picture | 29 |
| 2.6.6 Graphic Material | 29 |
| 2.6.7 Models and Mock-up..... | 30 |
| 2.6.8 Slides | 30 |
| 2.6.9 Posters..... | 31 |
| 2.6.10 Objects and Spacemen..... | 32 |
| 2.6.11 Audio aids | 33 |
| 2.6.12 Radio..... | 35 |
| 2.6.13 Audio Tape Recorder | 36 |
| 2.6.14 Audio-Visual Aids..... | 37 |
| 2.6.15 Television..... | 37 |
| 2.6.16 Overhead Projector..... | 38 |
| 2.6.17 Filmstrip Projector..... | 38 |
| 2.6.18 Film Projector and Video Player Projector..... | 38 |
| 2.7 Importance of Instructional Media in Functional Adult Literacy programmes | 38 |
| 2.8 Selection of instructional media | 39 |
| 2.9 Challenges of using instructional media | 42 |
| 2.10 Ways to enhance the utilization of instructional media | 46 |
| 2.11 Identified gaps and justification for the current study | 48 |
| 2.10 Summary of Chapter Two | 49 |

| | |
|--|---------------|
| CHAPTER 3: METHODOLOGY..... | 50 |
| 3.1 Overview | 50 |
| 3.2 Research design | 50 |
| 3.3 Population | 51 |
| 3.5 Data Collection Procedure | 51 |
| 3.5 Data Collection Instruments | 52 |
| 3.5.1 Semi-Structured Interview | 52 |
| 3.6 Data Analysis | 53 |
| 3.7 Limitations of the study | 54 |
| 3.8 Ethical Considerations | 54 |
| 3.9 Summary of Chapter Three | 55 |
| CHAPTER 4: PRESENTATION OF FINDINGS | 56 |
| 4.1 Overview | 56 |
| 4.2 Criteria used in selecting instructional media | 56 |
| 4.2.2 Summary of Findings to Question One | 58 |
| 4.3 Challenges facilitators face when selecting instructional media in functional adult literacy programmes in Lusaka District? | 59 |
| 4.3.1 Summary of findings to Question Two | 60 |
| 4.4 Solutions to challenges facilitators encountered when selecting instructional media in functional adult literacy programmes in Lusaka District | 60 |
| 4.4.1 Summary of Findings to Question Three | 62 |
| 4.5 Summary of Chapter Four..... | 63 |
| CHAPTER 5: DISCUSSION OF FINDINGS | 64 |
| 5.1. Overview | 64 |
| 5.2 Research objective 1: To identify the criteria used by the facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District | 64 |
| 5.3 Research objective 2: To determine the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District | 65 |
| 5.4 Research objective 3: To establish solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District | 67 |

| | |
|--|-----------|
| 5.5 Summary of Chapter Five | 68 |
| CHAPTER 6: CONCLUSION AND RECOMMENDATIONS | 69 |
| 6.1 Overview | 69 |
| 6.2. Conclusion..... | 69 |
| 6.2. Recommendations..... | 70 |
| 6.4. Summary of Chapter Six..... | 71 |
| 6.5 Suggestion for further research | 71 |
| REFERENCES..... | 72 |
| APPENDICES | 85 |

LIST OF APPENDICES

| | |
|--|----|
| Appendix 1: Semi-Structured Interview for Facilitators | 85 |
| Appendix 2: Consent form for participants | 86 |
| Appendix 3: Introductory letter..... | 87 |
| Appendix 4: MCDSS Research approval | 88 |
| Appendix 5: Ethical clearance | 89 |

ACRONYMS AND ABBREVIATIONS

| | |
|---------------|--|
| CSO | Central Statistical Office |
| DRGS | Directorate of Research and Graduate Studies |
| EFA | Education for All |
| FAO | Food and Agriculture Organization |
| UNESCO | United Nations Education and Scientific Organization |
| UNZA | University of Zambia |
| WHO | World Health Organization |
| ZAALIT | Zambia National Alliance for the Advancement of Literacy |
| ZDHS | Zambia Demographic Health Survey |

DEFINITION OF CONCEPTS

- Media:** The plural of ‘medium’, it is the way of communicating information or ideas (Kinyanjui, 1997).
- Instructional Media:** Devices and materials employed in teaching and learning (Romiszowski, 1988).
- Functional Adult Literacy:** A type of education or learning activity, in its broad sense, aiming at effecting change in human behaviour with all its cognitive, emotional and performance aspects (Muyoba, 1975).

CHAPTER 1: INTRODUCTION

1.1 Overview

This Chapter provides background information to the study on *selecting instructional media in Functional Adult Literacy Programmes in Lusaka District, Challenges and possible solutions*. Furthermore, it presents the statement of the problem, purpose of the study, research objectives, and research questions. The significance of the study, theoretical framework and delimitation of the study will also be presented. The chapter ends with a summary of Chapter.

1.2 Background of the study

World over, governments acknowledge that literacy is a fundamental human right and the foundation for lifelong learning and has the potential to transform human lives. Literacy plays an important role in improving the quality of life for the people. However, the lack of literacy contributes to lack of human and social development (UNESCO, 2006; ASPBAE, 2012).

Since 1949, five international conferences have established adult education and literacy as essential elements of the right to education. These conferences formed a part of the human rights discourse recognizing the fundamental role of education in the realization of human development goals. The Education for All proclaimed in Jomtien in 1990 followed by the Dakar framework adopted in 2000, have influenced literacy policy making and programme strategies in developing countries. However, the right to literacy still remains a dream for millions of Adults, majority of them being women who are still lacking basic reading and writing skills (UNESCO, 2015).

Most countries, including the poorest of them, have made significant progress in meeting the Education for All (EFA) goals as indicated by the consistent expansion of pre-primary education; the dramatic rise in primary and secondary school enrolment; the development of life skills programmes; higher literacy rates especially among the youth; achieving gender parity in primary education in most countries; and more resources invested to improve education quality (UNESCO, 2006; ASPBAE, 2012).

In Zambia, the government has continued to make progress in promoting literacy. The Zambia Demographic Health Survey (ZDHS) of 2013 – 2014, records that about seven to ten women aged 15 – 49 (68 percent) in Zambia are literate, an increase from the figure of 64 percent

reported in the 2007 ZDHS. The report further highlighted that the level of literacy is higher among women aged 15 – 24 (77 percent) than among women in the older age groups (59 – 63 percent), suggesting that young women have more opportunities for learning (CSO, 2015).

The organizational aspect of the scheme is, perhaps, worth taking a close look at. The programme was organized under the slogan ‘wake up’ or Shibukeni as it was known in Bemba. Mrs Hay first did a survey to determine the extent of illiteracy in the area. There were no formal classes, anyone wishing to learn found his own teacher and arranged to be taught at a time and place convenient to himself as well as the teacher. Mindolo Mission was responsible for the production and sale of the necessary primers. The station also trained and employed supervisors whose duty was to visit the townships to assist individual students and their teachers (Katati, 1985).

The programme was mainly geared to facilitating the teaching and assimilation of Christianity and as such was limited to teaching the three Rs (reading, writing and arithmetic). The year 1948 was significant in the history of adult literacy training in Zambia. It was the year in which Dr. Frank C. Laubach visited Northern Rhodesia to advise on how to produce primers and help train literacy instructors (Imakando, 1985). He taught teachers from the Jeans Teacher Training Institute, drawn from each of the eight provinces, how to organize mass literacy at Mindolo Ecumenical Foundation, Kitwe. The trained teachers were supposed to spearhead the mass literacy work in their respective provinces. In co-operation with the foundation, Dr. Laubach was also able to start some literacy classes on the Copperbelt, and at Munali he trained secondary-school students on the use of the ‘each one teach one!’ approach and for a brief period sent them out to the rural areas to teach illiterates (Imakando, 1985).

Although no literacy campaign was launched at the time, as Dr. Laubach and others would have liked, some literacy projects were started here and there by church groups, native authorities and interested individuals with some support from the colonial government. Direct involvement of the colonial government in eradication of illiteracy was very limited and, in most cases, depended very much on the personal initiative and interest of government officials (Mulenga and Mwansa, 1985). Since then, the Government of the Republic of Zambia through the Ministry of Community Development and Social Services has continued to use literacy programmes to increase access to education for the older populations.

In Zambia adult literacy instruction can be traced to the pre-colonial period (Luchembe, 2016). Snelson (1974) as cited in Luchembe (2016) records that literacy instruction was the earliest form of education whose introduction is associated with the coming of missionaries in the country. However, the growth and development of literacy in Zambia can be traced to the pre-colonial period, company rule, colonial rule and post-independence periods. The missionaries set up numerous village schools where rudiments of reading, writing and arithmetic were taught to children who stayed after religious instructions. Though the provision of some literacy training continued for a long time, village schools were poorly organized and were staffed by untrained teachers (Snelson, 1974).

The development of literacy work can also be traced to the Phelps-Stokes fund. The Phelps Stokes fund was born in 1911 through the bequest of Caroline Phelps Stokes, a wealthy New York woman whose own life had been dedicated to the service of others. Phelps Stokes played a major role in the development of African education. Phelps Stokes convened several commissions to study the educational conditions and needs of black Africans, and made recommendations for improving access and quality (Luchembe, 2016).

In 1924 the colonial government in collaboration with missionaries invited the Phelps-Stoke commission to survey the education system in Zambia (Northern Rhodesia) which made a number of recommendations. Snelson (1974) records that the Phelps-Stoke commission recommended the following: government to appoint the director of native education, the establishment of an advisory committee, government to subsidize the education system and train teachers and develop a curriculum that is able to adapt to the condition of the people. An advisory committee to draw representatives from both the government and missionaries was to be elected whose mandate would be the formulation of education policies.

The reports of the Phelps Stokes commission made a profound impression on the advisory committee on native education and this can be noted when the native education committee presented its policy on education in 1925. According to Snelson (1974: 141) “when the advisory committee presented its first policy of memorandum in March 1925, the influence of the Phelps-Stokes commission could be clearly seen”. This is a clear indication that the advisory committee worked on and implemented what the Phelps Stokes commission had recommended.

In 1943, the colonial government recommended a system of education catering for both children and adults and appointed a Commissioner for Native Development who set up Area Development Centres, one in each province. These centres taught courses such as home craft, brickwork, carpentry, tailoring, leather work, blacksmithing and mass literacy (Mwansa, 2005) cited in Luchembe (2016). Alongside literacy organized by the Commission for Native Affairs, the Development of African Education was assigned the responsibility of conducting mass literacy work. Literacy was however, overshadowed by skills training activity (Mwansa, 2005).

There were virtually no significant attempts to eradicate illiteracy on a wider scale until 1945, when Mrs. Hope Hay of Mindolo Mission station, in Kitwe, initiated the first experiments in adult literacy techniques. The venture, which later became a national pilot scheme, started among the miners at Mindolo Compound in Kitwe. Within a period of eleven months a total of 752 miners had learnt how to read and write in vernacular. Inspired by this success Mrs Hay decided to extend her work to other areas and by 1946, a phenomenal number of 10, 837 people had become literate, over 4,000 of whom lived in the rural areas (Katati, 1985; Snelson, 1974).

In 1963, a year before, Zambia's political independence, a UNESCO mission visited Northern Rhodesia and found that 50% of the pupils enrolled at grade 1 (sub A) did not proceed beyond grade IV. The mission observed that with the prospect of Northern Rhodesia becoming independent there would be a motivation for starting a literacy campaign to create a literate electorate. Thus, the mission made many recommendations concerning adult literacy. First, it recommended literacy in English. Second, it recommended a six-month literacy course for literacy teachers. Third, it recommended that literacy should be implemented by two ministries namely the ministry responsible for Community Development (literacy related to hygiene, agriculture and community) and the Ministry responsible for Education (literacy in English) (Luchembe, 2016).

The recommendations of the mission were wide in scope but among government officials, literacy was not taken seriously. Though some form of literacy was introduced in community development materials which were used, they were not suitable and those who attended classes soon relapsed into illiteracy (Mwanakatwe, 1968). At the time of political independence, there were over one million adults who were not able to read and write (Mwanakatwe, 1968; Alexander, 1971) and adult illiteracy was estimated at 61%. The government saw the high

illiteracy rate as an obstacle to economic development. For this reason, the government immediately thought of programmes aimed at reducing illiteracy among men and women so that they would meaningfully contribute to the development of the country. The literacy programmes are explained below.

1.2.1 Basic literacy programme

In 1966, the basic literacy programme was launched by the Department of Community Development under the Ministry of Rural Development. This programme ran from 1966 to 1971 and its main objective was to teach the three Rs i.e. writing, reading and arithmetic. It involved large numbers of participants with over 1,300 local volunteer teachers' thereby making literacy a major national concern and not just the responsibility of few full-time government officers (Mulenga, 2000; Mwansa, 2005). This programme was jointly funded by the government and UNESCO.

1.2.2 Functional Literacy (Agriculture)

In 1970, functional literacy was introduced initially in two provinces namely Central and Southern as a pilot project but later was extended to Eastern and Northern Provinces in 1974. The following year, the programme was extended to North Western and Western Provinces. Thereafter, the remaining provinces were covered. The programme was linked to the growing of more maize, the staple food of the country. And to supplement the project, a radio programme on literacy was introduced. It broadcast information on self-help programme, mother and child care, self-reliance and how to save money from their produce (Mwansa, 2005). This programme was jointly funded by the government and UNESCO.

1.2.3 Functional Literacy (Health and Nutrition)

The period after 1978 was characterized by a decline in the provision of adult education and literacy mainly due to reduction in budgetary allocations to adult education brought about by severe economic crisis in 1978. The Ministries of Education and Health in collaboration with FAO and WHO introduced a health and nutrition component into the on-going functional literacy programme. After a pilot phase from 1978 in three provinces namely Central, Lusaka

and Southern, the health and nutrition component was integrated into the Functional Literacy programme nationally (Luchembe, 2016).

1.2.4 National Literacy Campaign

In 1984, the Zambian government formed a national committee to identify feasible strategies of eradicating illiteracy following the Udaipur Conference organized by the International Council for Adult Education and the Germany Foundation for International Development (Mwansa, 2005). At the same time, the Women's Affairs Committee of United Nations Independence Party (UNIP), the ruling party then, created an inter-ministerial committee to examine the feasibility of launching a national literacy campaign following a conference to mark the United Nations decade for women. This sparked interest among women and in their working document proposed identification of needs, sending of study parties to Tanzania and Ethiopia to learn how countries had reduced illiteracy. Though the project failed to take off due to lack of resources, it contributed to the nurturing of political will among politicians and senior government officials (Mwansa, 2005).

In 1990 when UNESCO proclaimed the year 1990 International Literacy Year, a new committee (i.e. The National Literacy Campaign Committee) comprising non-governmental organizations and ministries was formed. The National Literacy Campaign Committee under the supervision of the Ministry of Community Development undertook three major activities in 1990 as follows:

- i. Under a joint committee of the Ministry of Community Development and Curriculum Centre of the Ministry of Education, literacy materials were reviewed and revised;
- ii. The National Literacy Campaign Committee played an active role in the preparation of the country paper for the international conference on Education-For-All held at Jomtien, Thailand; and
- iii. Training workshops for literacy instructors were conducted in all provinces in preparation for a national literacy campaign (Luchembe, 2016).

The Government of the Republic of Zambia launched the first national literacy campaign on 10th October, 1990. The goal of the campaign was to reduce illiteracy to 12 per cent by the year 2000. The beneficiaries were identified as the underprivileged women and men who had attended school and those who relapsed into illiteracy (ZAALIT, 1993). The campaign was designed to be

implemented in phases starting with Lusaka, Western and Eastern Provinces. Later, it would spread to North Western, Central and Southern provinces. Then, finally the campaign would be spread to Luapula, Northern and Copperbelt provinces. However, no time frame was fixed for any of these regions.

In 1992, the government established the Zambia National Alliance for the Advancement of Literacy (ZAALIT). The main goal of ZAALIT was to design and implement a campaign to eradicate adult illiteracy by 1993. ZAALIT had established over 1,000 classes with an enrolment of 25, 243 students (ZAALIT, 1993). However, like other previous campaigns ZAALIT was also faced with lack of adequate funds.

The government of the Republic of Zambia released the second policy document on education: Focus on learning. The main thrust of Focus on Learning was the mobilization of resources for the development of formal education. Then in 1996, the final Draft of the Education Support Implementation Programme (ESIP) document entitled “investing in our people” was released. Similarly, the National policy document on education entitled educating our future was released in 1996. Both documents recognized the central importance of adult and continuing education and literacy. Furthermore, both documents also acknowledged that adult and continuing education faced serious problems of underfunding, lack of skilled personnel and transport, inadequate materials for learning and teaching and poor coordination. It was again noted that although there was potential for enormous growth in the number of students reached by adult continuing education, the capacity to sustain immediate and rapid growth did not exist (Ministry of Education, 1996).

1.2.5 Use of Instructional Media in Functional Adult Literacy

Gbamanja (2001:11) described instructional media as:

...any devices with instructional content or function that is used for teaching purposes including books, supplementary materials, audio-visual and other sensory materials, script for audio and television instruction, programmes for computer manage sets of materials for construction and manipulation.

In Functional Adult Literacy programmes just like in any other learning activity, instructional media are important catalysts of social re-engineering and change in learners. The role of instructional media to enhance teaching for desired social and behavioral change cannot be over-emphasized since it is a pre-requisite in affecting behaviour of the learners in every field. Effective instruction cannot be fully accomplished without the use of instructional media. They include advances in technology which ushered in instructional media especially the projected and electronic materials as the most radical tools of globalization and social development (Iwu, 2006).

Instructional media provide the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more and more. Also, they provide opportunities for private study and at the same time stimulate learners' interest and curiosity. Further, it helps the teacher to overcome physical difficulties that could have hindered effective presentation of a given topic (Iwu, 2006).

Since the advent of instructional media, many educators have been fascinated by the potentials of instructional media to enhance teaching. Orakwe (2000) asserts that instructional media are gradually finding their ways into the classroom where modern and versatile teachers are exploiting new ways of transferring learning to the younger generation through the use of prints, visuals and audio or the various combinations of these trios which make up all we have in instructional media. Thus, instructional media are the information dissemination devices used in the classroom for easy transfer of learning.

Ema and Ajayi (2004) opined that instructional media creates change and progress only when the teacher is knowledgeable and knows how to make use of it. In this regard, professional attributes of the teacher and the general knowledge or his creativity in selecting, developing and using instructional media are essential for effective utilization of instructional media. Effective communication is the outcome of careful selection of appropriate medium or combination of media available by an effective teacher. Hence, instructional media are essential instruments for accelerating the pace of all human transformation. Instructional media also shake off inertia in people, achieve mobilization and direct their productive forces in improving their living condition. This shows the impact of the teacher in influencing the future development and growth of a learner.

The success of using instructional media to meet the teaching objectives demands effective use and communication skills of the teacher to satisfy instructional delivery. Arising from this, a number of instructional media are available for of Functional Adult Literacy programmes and they include: hardware like blackboards, radio, television, tape recorders, video tapes and recorders; and, software like transparencies, films, slides, teacher made diagrams, real objects, cartoons, models, maps and photographs (Romiszowski, 1988). This study, sought to examine the selection of instructional media in functional adult literacy programmes in Lusaka District with the view of establishing the challenges and proposing solutions to the challenges.

1.3 Statement of the problem

Koh and Owen (2000:33) define statement of the problem *“as a statement that identifies the phenomenon to be explored and why it needs to be examined or why it is a problem or issue”*.

Various studies provide evidence to the linkage between proper selection of instructional media and learning effectiveness (Aini, 2013; Anyanwu, 2003; Fidanboylu, 2014; Chinooneka and Mupa, 2015). However, none of these studies has addressed how instructional media are selected and utilized in Functional Adult Literacy programmes in Lusaka District. Therefore, there is a gap in knowledge on how instructional media are selected and utilized in Functional Adult Literacy programmes in Lusaka District. Thus, this study sought to determine the criteria used by the volunteer instructors in selecting instructional media in Functional Adult Literacy programmes, what challenges the Volunteer instructors faced when selecting instructional media in order to provide solutions to the identified challenges.

1.4 Purpose of the study

The purpose of the study is a statement contained within one or two paragraphs that identifies what the research intends to do and how it intends to do (methods) it with what participants (Tichapondwa, 2013). Thus, the purpose of this study was to establish the criteria followed by instructors in selecting instructional media in Functional Adult Literacy Programmes in Lusaka District with the view to find out the challenges and provide solutions to the challenges.

1.5 Objectives of the study

Tromp and Kombo (2011:36) view an objective as a specific statement relating to defined aim of the study. Specific objectives constitute the means by which the aim/goal of the study could be

achieved. They specify what the researcher will do in the study. Tichapondwa (2013) adds that objectives of the study represent a teasing out/unpacking of the purpose of the study.

The study rested on the following objectives:

- i. to identify the criteria used by the facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District.
- ii. to establish the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy Programmes in Lusaka District; and
- iii. to determine solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy Programmes in Lusaka District.

1.6 Research Questions

- i. what criteria do facilitators use in selecting instructional media to use in Functional Adult literacy programmes in Lusaka District?
- ii. what challenges do facilitators face in selecting instructional media in functional adult literacy programmes in Lusaka District? and
- iii. what solutions can be implemented to solve the challenges facilitators face in selecting instructional media in functional adult literacy programmes in Lusaka District?

1.7 Significance of the study

The significance of the study describes how the study contributes to existing research, benefits participants and contributes to practice and generates new theory (Calabrese, 2009: 148) cited in Phiri (2015). The essence of any research endeavor is an addition to the academic satisfaction, to find solution to the problems that have continued to perplex man in his attempt to actualize himself in the context of society. In any teaching and learning endeavor, instructional media stimulate critical and creative thinking in learners which is an important cornerstone in adult education. They also help learners to develop the skill of analytical enquiry, motivate to produce their own materials and provide experiences that are not easily obtained within the classroom environment. Arising from this, this study may be significant to the following beneficiaries:

- i. **Facilitators:** The study will provide insights regarding the criteria to be followed when selecting instructional media.

- ii. **Researchers:** The study may be of help to other researchers who wish to conduct similar research in the field.
- iii. **Ministry of Community Development and Social welfare/other providers of Functional Adult Literacy:** The study may serve as material for selection of instructional media in Functional Adult Literacy programmes.

Finally, this research may be useful to government as the findings of this study as well as recommendations could be used by the Ministry of Community Development and Social Welfare as framework to organize seminars and workshops to train adult educators on how to teach functional adult literacy effectively. Furthermore, the findings of this study may be of significance to programme planners in the Ministry of Community Development as it may provide criteria for selecting the most appropriate instructional media in functional adult literacy programmes.

1.8 Theoretical Framework

This section details the theory that guided this study. Tichapondwa (2013) explains that the theoretical framework is sometimes called the conceptual framework and describes the theories and concepts considered relevant in finding solutions to the problem that has been identified. All research has a conceptual basis which is a perspective from which the story is being told. In this way, the theoretical framework introduces and describes the theory which explains why the research problem under study exists. It consists of concepts together with their definitions and existing theory used for the study.

The study is informed by Malcom Knowles adult learning theory also known as andragogy. This theory holds a set of assumptions about how adults learn. Adult learning theory emphasizes the value of the process of learning. It advocates for approaches to learning that are problem-based and collaborative rather than didactic, and also emphasizes more equality between the teacher and learner. Andragogy as a study of adult learning originated in Europe in 1950's and was then pioneered as a theory and model of adult learning from the 1970's by Malcom Knowles an American practitioner and theorist of adult education, who defined andragogy as "the art and science of helping adults learn (Knowles, 1980: 43).

Andragogy is based on a number of assumptions about the adult learner. Knowles (1980:44) originally advanced the following assumptions:

1. As a person matures his or her self-concept moves from that of a dependent personality toward one of a self-directing human being. Adults, by virtue of their age and social roles, do not want to be treated as children in the learning situation. They want to be active participants in the learning encounter. In essence, adults want to participate in deciding what will be learned, identifying their learning needs, setting learning goals and activities, as well as evaluating such activities.
2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning. This means that adults, by virtue of their age and participation in a wide variety of activities (social, economic and political), accumulates vast life experiences. These experiences become crucial in adult learning encounters. As such, the role of the adult educator is to cultivate the experiences and to make it possible for learners to transfer such experiences to other related situations.
3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role. Adults play different socio-economic roles in society. Since conditions in society are not static, but changing with the passage of time, individuals must constantly acquire knowledge and skills in order to remain relevant. For example, the dynamism in society as manifested in technological and social economic development has meant that individuals constantly need to upgrade their knowledge and skills. Adults are, therefore, compelled to learn due to changing demands of the job and life situations.
4. There is a change in time perspective as people mature-from future application of knowledge to immediacy of application. Thus, an adult is more problem-centred than subject-centred in learning. Children go to school to acquire knowledge and skills which will be immediately applicable to their occupations. The urgency and immediacy of application of knowledge and skills means that the curriculum of adult education programmes should reflect the needs of adult learners.

Two additional assumptions were later added to the already existing ones. According to Knowles and Associates (1984: 12):

5. The most potent motivations are internal rather than external.
6. Adults need to know why they need to learn something. This is somehow related to the fourth assumption. Most adults learn in order to bring about desired changes in their socio-economic conditions. In this regard, they must know in advance, why a particular learning encounter is relevant and to what extent it will bring about the desired changes.

Knowles saw these assumptions as the basis to designing adult education programmes. From each of these assumptions, Knowles (1984:84) indicates several implications for designing, implementation, and evaluation of learning activities with adults. For example, regarding the first assumption that as adults mature, they move from a stage of dependency to that of self-directedness, Knowles (1980:47) argues that the classroom climate should make adults to feel more accepted, respected, and supported; and that they should exist a spirit of mutuality between teachers and students as equal enquirers. This simply means that the facilitators must endeavor to involve the adult learners in the entire process of learning including selection of instructional media which are important prerequisites for effective teaching and learning. Learning from this perspective is therefore a transaction between the educator and learners where both parties reach consensus about how the entire learning process should be organized.

This theory was appropriate for this study as it brought out what should be considered when selecting instructional media in functional adult literacy programmes. Its tenets or beliefs are the main ideas this study is based on. The theory guided the current study on what data to collect. It also helped the study to validate and invalidate the applicability of Malcom Knowles theory of adult learning in selecting instructional media in functional adult literacy programmes by using views from the participants.

1.9 Delimitations of the study

Choga and Njaya (2011) define delimitations as setting of limits or boundaries or delimiting the research study. In other words, delimitations are limits you impose on the scope of the study in order to make it more manageable. This study was conducted in the Ministry of Community Development and Social Welfare in Lusaka District.

1.10 Organization of the dissertation

This dissertation is organized into six chapters. The first chapter is the introduction which gives a synopsis of the background. Further, an attempt has been made to explain certain concepts that are used in the study in order to make them clear to the reader. The chapter also comprises the statement of the problem, purpose, objectives, research questions, significance, theoretical framework, delimitations and limitations of the study.

The second chapter reviews related literature on instructional media. It has attempted to analyze some of the existing literature on the subject of instructional media in teaching and learning by various authors globally.

Chapter three discusses methods of data collection used in the study. This chapter is divided into sections subsumed under the following headings: the research design, population, sample, sampling technique, instruments, data collection, and summary of data collection technique and data analysis. The research findings are presented in chapter four. Chapter five consists of discussion of findings of the study while Chapter six deals with the summary, conclusion and recommendations of the study. This chapter makes suggestions for further research too.

1.11 Summary of Chapter One

This chapter brought out background information to the study on selecting instructional media in Functional Adult Literacy Programmes. The chapter also presented the objectives of the study as well as the research questions. Equally this chapter discussed the significance of the study, the theoretical framework and the delimitation of the study. The chapter presented the operational definition of concepts and ends with the summary.

The next chapter reviews literature relevant to the study in a bid to establish what other scholars have written in the area of instructional media in Functional Adult Literacy programmes.

CHAPTER 2: LITERATURE REVIEW

2.1 Overview

Chapter one presented the introduction of the study titled “*Selecting Instructional Media in Functional Adult Literacy Programmes in Lusaka District: Challenges and Possible Solutions*”. It started with the background which was followed by the statement of the problem, purpose of the study, research objectives, and research questions. The chapter also presented the significance of the study, theoretical framework, and delimitation of the study, operational definition of terms and organization of the study and ended with a summary.

The next chapter provides a synthesis and a critique of studies and writings from outside Africa, within Africa and in Zambia related to this study. The sub-headings in this chapter include; definition of the concept of instructional media, the roles of instructional media in teaching, properties of instructional media/materials, origins of instructional media/materials in teaching, types of instructional media, and importance of instructional media. Lastly, a summary of this chapter will be provided. Literature in this chapter was reviewed in relation to the study objectives which were rephrased and used as sub-headings. This study addressed the following objectives:

- i. to identify the criteria used by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District.
- ii. to establish the challenges faced by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District; and
- iii. to determine solutions to the challenges faced by the facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District.

Creswell (2012) explains that literature review is a written summary of journal articles, books, and other documents that describes the past and current state of information on the topic of your research study. It organizes the literature into subtopics, and documents the need for a proposed study. In the most rigorous form of research, educators base this review mainly on research reported in journal articles. However, a good review, however, might also contain other information drawn from conference papers, books, and government documents. In composing a literature, you may cite articles that are both quantitative and qualitative studies. Regardless of

the sources of information, all researchers conduct a literature review as a step in the research process.

Reviewing literature is the process of searching systematically compiling, assessing and scholarly interrogating previous literature in order to inform or demonstrate its relationship with any current research. Such a systematic or conceptual review is critical analysis (Cronin, Ryan and Coughlan, 2008), or summary of research on the topic of interest. McMillan and Schumacher (2010) view it as a narrative interpretive criticism of existing literature with a view to providing an understanding of the existing knowledge. It is prepared in order to put the research problem into context, or to identify gaps and weaknesses in studies that were carried out before yours.

2.2 Concept of instructional media

According to Smaldino, Lowther, and Mims (2004) a medium (plural, media) “is a means of communication and source of information. Derived from the Latin word meaning “between”, the term refers to anything that carries information between a source and a receiver”. Examples of media include video, television, diagrams, printed materials, computer programmes, and instructors. These are considered instructional media when they provide messages with an instructional purpose. However, the purpose of media is to facilitate communication and learning.

For over a hundred years, teachers have used various types of audio and visual aids to help them teach. Recently, teachers have expanded their repertoire of materials and procedures to include the new technologies for learning. The newer learning technologies (products) include the use of computers, compact discs, and digital videodiscs (DVDs), satellite communications, and the internet. Arising from this, students are no longer limited to the confines of the classroom (Smaldino, Lowther, and Mims, 2004).

In teaching and learning, instructional media are carriers of instruction which are used by the facilitator. Instructional media are used for the systematic presentation of the instruction. The term media include a wide array of materials, equipment and techniques. Some of the materials include chalkboard, bulletin boards, filmstrips, slides, motion pictures, charts, maps, books and

combination of these. Each of these materials and their associated techniques, equipment, have a unique set of physical characteristics that can be classified on the types of media (Kemp, 1985).

Instructional material is otherwise known as instructional media. Adekola (2008) defines the term instruction “as a deliberate arrangement of experience within the learning space, classroom, laboratory, workshop and many more aimed at helping learners to achieve desirable change in behaviour or performance. On the other hand, media, according to Vikoo (2008), is used to think about television, satellite communication, computer and other sophisticated modern technologies. Therefore, instructional media as the name suggests are materials of visual, audio-visual category that helps to make concepts abstracts and ideas concrete in the teaching/ learning process. They are also materials which the teacher uses in supplementing his/her teachings. Instructional media include materials used to facilitate for better results.

To Onyeozu (2007) defines instructional media as resource materials that help to facilitate teaching and learning. He adds that the use of instructional media/materials does not only encourage teachers and students to work collaboratively but also results in more cooperative learning activities among the students. Similarly, Ikerionwu (2000) refers to instructional media as objects or devices which help the teacher to make learning meaningful to the learners. The term instructional media as described by Adekola (2008) means all available human and material resources which appeal to the learners’ sense of seeing, hearing, smelling, tasting, touching, or feeling and which assist to facilitate teaching and learning. When the students are given the chance to learn through more senses than one they can learn faster and easier. In this way, the use of instructional media provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more. Instructional media are channels of communication through which information passes for usage in educational situation in conjunction with the facilitator. Going through the description of instruction material, it would be observed that the understanding behind the use of instructional material is to aid learners in their learning.

Talabi (2001) asserts that Instructional media are generally designed to provide realistic images and substitute experience to reach curriculum experiences. The media are considered the most efficient in the education set up. They are substitutes for the teacher. Their use, however, calls

for an imaginative approach by the teacher who needs to constantly be on the alert for new ideas and techniques to make the lessons presented with different instructional media achieve effective outcomes.

2.3 The role of Instructional materials in teaching

It cannot be overemphasized that instructional media play a vital role in the designing and use of systematic instruction. As earlier defined, a medium broadly conceived is any person, material or event that establishes conditions which enable the learner to acquire knowledge, skills and attitudes. In this way, the teacher, the text book, and school environment constitute very important media for teaching and learning. Therefore, when considering the instructional media to use, the teacher must be able to distinguish between the materials and the equipment since both are usually implied when media are discussed. The material itself can exist in several formats such as: still pictures which may be printed in a text book or may appear in a film strip or on a slide. Still pictures may also be transferred to an overhead transparency or placed on a bulletin board. In this situation, the still picture is the material and the projector or a bulletin board is the equipment. The material and the equipment together constitute the medium (Dike, 1993).

Instructional Media are the means for transmitting or delivering messages and in teaching-learning perspective delivering content to the learners, to achieve effective instruction. Media can be used effectively in formal situation where students are working independently or teacher is working with other group of students. Understanding the importance of effectively utilizing the Instructional Media in any teaching/learning process cannot be over emphasized. Instructional media enhance facilitation and make teaching/learning easy, lively and concrete (Omeng and Mosol, 2016).

Instructional media are considered important in teaching and learning in all levels of education because textbooks and other resource materials are basic tools. Absence or inadequacy makes teachers handle subjects in an abstract manner, portraying it as a dry and non-existing. For example, textbooks, charts, maps, audio-visual and electronic instructional medias such as radio, tape recorder, television and video tape recorder contribute much in making learning more

interesting (Atkinson, 2000). The importance of instructional media is also evident in the performance of students (Adeogun, 2001).

According to Adeogun, schools, whose teachers use more instructional resources perform better than schools, whose teachers do not use instructional materials. This corroborated the study by Babayomi (1999) that private schools performed better than public schools because students and teachers are provided with sufficient and quality teaching and learning resources. From this importance, schools at all levels of education have been advised to have quality and adequate instructional facilities to raise academic performance of their students.

Because of the many benefits associated with instructional media good teachers have been using them for centuries. New inventions have brought about advancement in technologies which the educational community is benefiting from. The new developments include; printing, recording, photography, cinematography, radio, television and the computer, all these contribute the vast array of resources now available to nearly every teacher (Omenga and Mosol, 2016).

According to Lekoko and Gboku (2007), teaching and learning materials are resources that drive and enhance the effectiveness of teaching-learning environment of the adult learners. They provide the essence of the programmes subject matter and guide the teaching – learning experience. Responsible adult educators exercise caution when thinking of materials to use. In this way, selecting relevant programme materials is a systematic exercise that cannot be rushed and requires a thorough analysis of the different options available.

When selecting instructional media for Adult learning the things to consider are locating relevant materials and coming up with appropriate selection criteria in order to locate relevant materials the starting point is to consider how the materials can complement the local contexts. This entails that a strong attempt should be made to find locally relevant materials. Existing materials may be found in a number of places including bookstores, libraries, national archives, museums, local schools, churches, homes and work environments. If there are no existing materials, the and learners, can produce them (Lekoko and Gboku, 2007).

In adult education selecting materials for use in programme delivery involves great care and effective decision-making skills. Before selection process can begin, the educator must know if the programme materials are available. Printed materials held in institutions such as libraries, bookstores, and national archives is stored systematically and located using a comprehensive reference. Once the issue of availability is settled, the selection process begins. Selection is guided by a number of important questions, including:

- i. Does the material match the programme objectives?
- ii. Can the material be accessed by the largest number of participants?
- iii. Is the material affordable?
- iv. Can the material be made available and purchased on time?
- v. What setting will the material be used in (formal classroom, home, workshop, and so on)?

A number of other factors also determines material selection. It is the duty of an educator to ensure the content of all proposed books meets the programmes stated objectives (Diamond, 1991:34).

Cultural sensitivity is another factor that greatly influences the selection of materials to be used by adult learners. Adult educators should not select materials that conflict with the culture or cultures of the programme participants. Culture here refers mainly to values, beliefs, norms, actions and behaviors influenced by life situations such as existing technologies, and the economic and political climate (Cleaver, 2001).

Time is a factor that affects material selection. Educators must allow sufficient time to access the properties and value of selected materials; and, as Diamond (1991) observes, this in turn will depend upon the overall time allocation of the programme. In cases where the materials need to be sourced, secured, purchased and made available, this process has to be completed well in advance of the start of the programme. The process often involves calculating a rough estimate of the number of participants expected (Kemp, 1985), as well as the time needed to visit the different locations where the materials are held. At times, an educator needs to schedule the availability of loaned or rental audio-visual resources for use in the programme. This also needs

to be planned in conjunction with the overall scope, content, and sequence of the programme (Diamond, 1991).

Other factors impacting upon the selection process are:

- i. Considering how materials will be used to complement programme objectives;
- ii. Considering how participants are going to be used. If learners fulfil a resource function (through providing their own stories, poems, newsletters, artwork and so on) it is important that they are involved in determining how this is done;
- iii. Considering how other teaching aids are to be used. This will help educators to establish the quantity and quality of the necessary materials;
- iv. Considering the budget- there may be other things needed to run the programme. An adult educator must study the programme budget and assess how the costs of the proposed materials affect other necessary resources. If the materials costs are too high, changes to the proposed items may be needed; and
- v. Calculating the approximate number of potential programme participants, to see whether sufficient selected materials have been identified (Lekoko and Gboku, 2007: 78).

2.4 Properties of instructional media

Instructional media have three properties. These properties greatly help to indicate why they are used and what they can accomplish that teachers alone cannot accomplish. These properties affect the ways in which each medium is used. Reiser and Dick (1996) identify a number of properties of instructional media. The fixative property permits the capture, preservation, and reconstitution of an object or event. The photographic film, audio tape, and video tape are raw materials fixing these objects and events. Once the photographs are made or voice recorded, the information has been saved and is then available for reproduction at any time. This enables the recording and reconstitution of events which occur once in history. The fixative properties is very important to a teacher as it enables him or her to analyze and criticize a group after performance. The other property is the manipulative property. This property permits the transformation of an object or events in many ways. The events can be speeded up as in the opening of a flower bud which is recorded by time-lapse photography with a motion picture camera or an event may be slowed down by replaying a motion picture camera or an event may

be slowed down by replaying a motion picture film or video tape at slower speed than that at which it was recorded.

There are a number of advantages of the manipulative property and one of them is editing of real objects or events. The special motion picture effects such as time-lapse photography or high-speed filming can show events that would otherwise be unavailable to the human eye. Complex details may be simplified by highlighting important components of an object. The other property is distributive. This property allows us to transport an event through space, simultaneously presenting each of potentially millions of viewers with virtually identical experiences of an event use in one location. Once the information is recorded in any medium it can be used and reused and reproduction will be exactly the same as the original. The potential for same content to be transmitted to different audience is enhanced (Reiser and Dick, 1996).

Phenomenal and Manipulative Media are the community-based resources that promote teaching-learning of moral values and cultural activities of the learners. Phenomena are instructional situations such as features, resource persons and other community resources that are directly apprehended by the learner in direct contact with experiences that far transcends volumes of recorded literature. Phenomena are under-utilized because of time, finance, knowledge of the teacher, inflexibility of the school time table and other infrastructural problems. This class of teaching aids or instructional media deals mostly with the affective domain but do not preclude the psychomotor and cognitive domains. Manipulate materials are those instructional materials which the learner handles skillfully and expertly to bring about the desired behavioral changes. They are very important in the development of skills in professional training. Manipulative materials promote complete mastery of the content materials and the specific objectives. They form part of instructional and performance evaluation. The greatest significance of these materials is that they express the channel through which the required learning takes place, hence cutting across all aspects of skills development and mastery learning. They are also vital for effective instructional delivery because skills such as communication patience's and assertiveness are easily demonstrated, learnt and observed through instructional games (Esu 2004 in Iwu, Ijioma, Onoja and Nzewuihe, 2011).

According to Azikiwe (2007), instructional media covers whatever the teacher uses to involve all the five senses of sight, hearing, touch, smell and taste while presenting his/her lessons. In a similar vein Adegun (1997) says instructional media are things which are intended to help the teacher to teach more effectively and enable the students to learn more readily. Instructional media are information carriers designed specifically to fulfil objectives in a teaching-learning situation. They are very important in teaching.

A range of studies explain the significance of instructional media for effective teaching and learning. A study conducted by Fidanboylu (2014) revealed that the use of visual aids during teaching motivates the learners and reinforces the concept being learnt. Furthermore, it provides exciting learning experiences and helps to improve learners understanding. Makewa et al (2012) indicated that media resources are useful in language instruction. They also argue that instructional resources are vital to the teaching of any subject. In Ghana, a study of Seth (2009) indicates that lack of wall charts, models and other conventional media to compliment the use of chalkboards and textbooks in the schools increased difficult for teachers to offer quality teaching and learning to promote high academic performance.

Chinooneka and Mupa (2015) conducted a similar study in Zimbabwe and discovered that teachers' failure to use a variety of media in teaching and learning process resulted into failure in grasping basic skills of reading and writing. The use of instructional media makes the learning process more effective because it builds greater understanding, reinforcement and retention of the subject matter (Ayot, 1984 as cited in Ngussa, 2015). This is supported by Schofield et al (1998 as cited in Wamalwa and Wamalwa, 2014) who argued that when instructional media are incorporated in the teaching and learning process, learners can easily and effectively understand and retain what is being taught in the classroom.

The findings from the reviewed literature above could not be generalized to Zambia as the studies were conducted outside Zambia while this study has been conducted in eight sub centres of Lusaka District.

2.5 Origins of instructional media in teaching

According to Reiser (2001), the history of using instructional media in teaching dates back to the 1900s. He adds that during the 1920s – 1930s technological advances increased interest in instructional media and as a result the audio-visual instruction movement began. In 1923, the Association for Educational Communications and Technology was founded. Also, by the early 1930s people believed, that due to the advances in radio broadcasting, that the radio would be a medium that would revolutionize education. Unfortunately, the radio did not have as big an impact on instructional practices as audio-visual enthusiasts predicted.

In the 1940s, World War II led instructional designers to design and develop instructional firms that would train military personnel for combat. Instructional firms were successful because they could train individuals quicker without taking away training effectiveness. At the end of the World War II the German chief of general staff stated, “We had everything calculated perfectly except the speed with which America was able to train its people. Our major miscalculation was in underestimating their quick and complete mastery of film education”. Given the success of the military films, there was a renewed interest in instructional firms for classroom use in schools. Media comparison research studies compared how much students learned after being presented with instruction via a specific instructional medium, such as film and radio, with how much students learned through teacher-led instruction on the same topic (Reiser, 2001).

During the 1950s leaders in the audiovisual movement became interested in theories and models of communication. Authors of the models stated that when planning for communication it is important to think about each stage of the communication process. The process involved sending a message through a channel or instructional medium to reach the receiver of the information. In 1963, David Berlo emphasized that communication was primary and that media was secondary. Communicating is essential for learning to occur. Instructional television made a huge growth during the 1950s as well. In 1952, the Federal Communications Commission set aside 242 channels for educational purposes. Unfortunately, some people believed that the instructional quality of some of the programs were mediocre. Along with teacher resistance, installation expenses, maintenance expenses, and the mediocrity of the instructional television programs instructional television was discarded by the mid-1960s. By the early 1970s, instructional media still had not made a big impact on educational practices (Reiser, 2001).

In the 1950s computers were utilized by researchers at IBM. The researchers developed computer-assisted instruction (CAI) author language and developed the first CAI program to be used in public schools. In elementary schools, computers were mostly used for drill and practice or they were utilized to teach computer-related skills such as typing. But, the wide-spread interest in computers as a medium of instruction did not occur until the 1980s. Since then the instructional technology field has expanded and changed. The field is constantly evolving with the introduction of new technologies. Some technological advances have revolutionized how instructional technology is being utilized. These modern instructional developments are: utilization of the internet, distance education opportunities, learner centered learning environments, web 2.0 tools, virtual environments - such as Second Life, wikis and blogs (Reiser, 2001).

In Africa, the use of instructional media dates back to the Stone Age man who started scratching figures and images on surfaces of rocks to serve as media to communicate his expressions. According to World Encyclopedia (2001) cited in Jebungei (2016) the use of instructional media in Africa started somewhere from the Stone Age period. The Egyptians for example used hieroglyphics for visual communication of ideas. As man's march towards finding new ways of doing things continued, the bark of trees and textiles were used as materials to communicate information which included principal materials such as papyrus, parchment and paper.

2.6 Types of Instructional Media in Functional Adult Literacy

According to Mustapha (2002) and Azikiwe (2007) instructional media are usually classified based on the characteristic they exhibit. There is a wide variety of instructional media which could be profitably and effectively used in the classroom of Functional Adult literacy learning situation. Arising from this, instructional media/materials could be broadly classified into three groups namely audio, visual and audio-visual.

2.6.1 Visual aids

Shabiralyani, Hasan, Hamad and Iqbal (2015) define visual aids *“as those instructional aids which are used in the classroom to encourage students learning process”*. They add that visual aids are those sensory objects or images which initiate or stimulate and support learning. Visual

aids are any devices which can be used to make the learning experience more real, more accurate and more active.

Rather (2004) adds that visual aids appeal to many senses such as; sight, touch and smell. Visual Aids comprises of non-projected aids. Chalkboards and adhesives pictorial aids which include charts and pictures mobile three-dimensional aids are examples of visual aids.

According to Rather (2004), visual aids are effective tools that invest the past with an air of actuality. Visual aids distribute the learners with true knowledge, which detention their devotion and help in the understanding of the ancient marvels. When we use visual aids as teaching aids, it is one of the aspects which root participation of students in the lesson because when students look at visual model or aid, it is measured as a kind of contribution. The use of visual aids in teaching learning process has multifarious values (Mohanty, 2001). Visual aids give chance to speakers to make a more professional and consistent performance. The teaching career is full of limitless opportunities to enrich the academic survival of students, while some ideas and educational goals will be easy for students to hold, other will need you to think productively to ensure that important learning aims are met. In this way, visual aids concretize the information to be obtainable and help in making learning practice apple real, active and vital. They supplement the work of the teacher and help in the research of the text books. The great educationist Comenius has this to say: *The foundation of all learning consists in representing clearly to the sense and sensible objects so they can be appreciated easily* (Singh, 2005 as cited in Shabiralyani, Hasan, Hamad and Iqbal, 2015).

Examples of learning resources include visual aids, audio aids, real objects and many others. Visual aids are designated materials that may be locally made or commercially produced. They come in form of, for illustration, wall charts, exemplified pictures, symbolic materials and other two-dimensional items. There are also audio-visual aids. These are teaching machines like television, radio, and all kinds of projectors with sound attributes. Television and radio programmes provide another useful learning resource. Films, likewise, are general teaching/learning resources. In addition to helping students remember important information, teaching/learning resources have other returns. When accurately used they aid achievement and hold the attention of students. Visual aids can be very useful in supportive to a topic, and the

amalgamation of both visual and audio stimuli is particularly effective since the two most important senses are involved (Burrow, 1986).

In the view of Erickson and Curl (1972) audio visual technology has a number of roles such as: extending human experience, provide meaningful information, stimulate interest, guide student response, overcome physical limitations, stimulate problem limitations and provide diagnostic and remedial tools.

2.6.2 Print Material

Print materials are some of the oldest material in education. Print materials are useful for informational or motivational purposes. They are used to convey verbal information through print. They form the most widely used material in education and they include textbooks, periodicals, primers, and encyclopedia, and newspaper, magazine, file record minutes and many more. They provide good source for teachers to structure their lesson plans and notes and they can be used as basic instructional guide. Print medium can be used to supplement other media with maximum effect. Print materials can also incorporate several other media like pictures and graphic materials thus serving as multimedia (Blyth, 2001 and Kemp & Smellie, 2009).

According to Onasanya (2008), print media is one of the oldest and most widely used media in education. He adds that such media are essential for information dissemination purposes. Print media include: textbooks, syllabuses, course books, teachers guides, periodicals, encyclopedia, newspapers and many more.

2.6.3 Chalk and Chalkboard

A chalkboard or blackboard is a reusable writing surface on which text or drawings are made with chalk or other erasable markers. Blackboards were originally made of smooth, thin sheets of black or dark grey slate stone. However, modern versions are often green or brown and are thus sometimes called a green board or brown board instead. A blackboard can simply be a piece of board painted with matte dark paint (usually black or dark green). A more modern variation consists of a coiled sheet of plastic drawn across two parallel rollers, which can be scrolled to create additional writing space while saving what has been written. The highest-grade chalkboards are made of a rougher version porcelain enameled steel (black, green, blue or

sometimes other colours). Porcelain is very hard wearing and chalkboards made of porcelain usually last 10 – 20 years in intensive use (Farrant, 1980).

Blackboards have many disadvantages. To start with, they produce a fair amount of dust, depending on the quality of chalk used. Additionally, some people find them uncomfortable or may be allergic to it, and there has been speculation about the links between chalks in areas shared with dust-sensitive equipment such as computers. However, these alternative methods of displaying information have drawbacks of their own. The scratching of fingernails on a blackboard is a sound that is well-known for being extremely irritating. Blackboards are also used in many establishments (typically public houses) as a form of advertising often for upcoming events and menus, as well as to keep the score in dart matches (Farrant, 1980).

According to Blyth (2001), Chalk and Chalkboard can be used to present instructional content as immediate sketchbook and they are essentially temporary for delineating ideas. When integrated with other media, they can give full explanation. In Zambia chalk and chalkboard are widely used in classroom presentation in most subject areas. Neatness of the chalkboard must be ensured through use of guidelines, templates, compasses and straight edged rulers which enables the facilitator to divide the chalkboard into sections. Lettering should follow the occidental form of lettering that is from the left sector of the chalkboard to the right or use of only the middle portion of the chalkboard. Chalks to be used for teaching must be in form of wedges and cones, so as to give uniform thickness of line. Coloured chalks may be used when it is appropriate to show distinction among parts of drawing and for emphasis of teaching points.

2.6.4 Realia

Kemp and Smellie (2009) define realia as real things or objects (as opposed to representation of models) as they are without alteration. They include coins, tools, artifact, plants and animals among others. Specimen exhibits and cut away objects are some of the classification used for realia which have great value in virtually every subject. Realia eliminate distortion in student's knowledge on the topic being taught. Realia provide students the opportunities for hands on interaction and experience.

2.6.5 Still Picture

Still pictures are non-projected, non-motion pictures in opaque form. They are a photographic representation of people, places or things and can be used to present information in all subject areas. When still pictures are properly mounted on cardboard with proper wedges as individual pictures to produce a single visual, they can be used to pass across wide range of information (Kemp & Smellie, 2009).

2.6.6 Graphic Material

Graphic materials are non-photographic two-dimensional materials designed to communicate a message to the learners. They may incorporate symbolic visual and verbal cues. Graphic material includes: drawings, charts, graphs and posters among others. Drawings are more finished and representation arrangement of lives to represent persons, places, things and concepts. Charts are abstract representation of abstract relationship like tabular charts timeline and classification charts. Graphs are visual representation of numerical data like polar graph, scatter graph, line graph to mention but a few (Blyth, 2001).

Charts should have a clear, well-defined instructional purpose. In general, it should express only one major concept or configuration of concepts. However, caution should be taken if you are developing your own charts. One of the considerations is to ensure that the chart contains the minimum of visual and verbal information needed for understanding. For instance, a cluttered chart is normally confusing. If you have a lot of information to convey, develop a series of simple charts rather than a single complex one. Using the kiss principle which means keep it simple for students can guide the instructor to come up with charts that meet the needs of the individual learners (Smaldino, 2004).

On the other hand, posters incorporate visual combinations of images, line, colour and words. They are intended at least long enough to communicate a brief message, usually a persuasive one. To be more effective, posters must be colorful and dynamic. They must grab attention and communicate their message quickly. However, one drawback of using posters is the fact that their message is quickly blunted by familiarity. Consequently, should not be left in display for far too long (Smaldino, 2004).

2.6.7 Models and Mock-up

Models and mock-up are three-dimensional representation of a real thing. A mock-up is a smaller model or replica of something that will eventually be built or that is used for teaching. A mock-up can be a prototype, or a first version of something that will be improved upon before the final version is constructed. Another kind of mock-up is a page of a newspaper or magazine that's laid out so it can be rearranged and perfected before the finished publication is printed. Some mock-ups are full size, but made of cheaper materials than the final product will use — a furniture maker might use this method. A model or mock-up can be looked at from all sides as it has breadth, length and depth. Models are representation of real things that are infinitely large, like earth or solar system or real things that are small, whether animate or inanimate. They may be complete in every detail or more simplified than the original. Some models can be disassembled for learners' close observation (Kemp & Smellie, 2009).

2.6.8 Slides

Slide is a film transparency contained in a frame or mount. There are several slides format, but by far the most common is the two inches by two inches' slides. Slides are used with either slide projector or a viewer. Slides are a versatile medium. It is to arrange and rearrange them to meet variety of instructional needs. Slides can be projected without total room darkening; or they can be viewed without any room darkening what so ever by an individual using a slide viewer. Slides and cassette tape are a very popular combination. The teachers find the slide/tape medium useful and easy to produce locally (Obanya, 1980).

Slides have many advantages and one of them is that the sequence of slides can be altered to meet specific needs. Slides are easily made without much expense. The larger image area of slide permits a better picture and more detail than a film strip does. Many people have own slide collections and local materials are freely available. Additionally, slides are easy to store in trays. Pictures can be held on the screen for class discussion as bag as they are needed (Obanya, 1986).

Slides also have limitations. Firstly, because the sequences are not fixed, slides mat become disordered, particularly if the students use them for independent study. Projection equipment can relatively expensive. Two or more adequate film strip projectors often can be purchased for the

cost of one slide projector. Compared with film strips, commercial sound/slide instructional programmes are quite expensive and the selection is much more limited (Obanya, 1980).

2.6.9 Posters

Farrant (1980) defines poster “as visual combination of bold design, colour and message which is intended to catch and hold the attention of the passer by long enough to implant or to reinforce a significant idea in his/her mind”.

Posters have existed in primitive form almost since the invention of movable type printing. However, the modern poster was born in 1867 in Paris, when Jules Cheret, the first of the great modern poster artists was commissioned by Sarah Bernard to prepare a poster announcing her appearance in the play *Le Biche Au Bios*. The use of color, design, and bold lettering was superb, and the poster stated a new trend in graphic communication. Its role is to implant very quickly in viewer’s mind, or to make him recall, a single important idea. The poster must have strong eye appeal if it is to attract attention and have enough holding power to put its message across (Obanya, 1980).

Good posters must have a dynamic, impelling quality. They must be essentially simple, for there is no time to involve the viewer in detailed study. Additionally, the poster must stand out sharply. These features may be a photography, a drawing, or striking design. Furthermore, a good poster must be able to catch a viewer’s attention and the message must be transmitted clearly and quickly. This is usually achieved by combining the illustrative picture with a brief text printed in bold type. The meaning must be clear and succinct and able to be grasped at a glance (Farrant, 1980).

Effective posters are usually pleasing to the eye. All posters must embody good design, good lettering, and attractive colour. Posters used in schools need to be attractive in order to be appropriate. The attractive poster is inherently pleasing which will result in effective communication. Good composition, colour and techniques are the principle elements in preparing effective posters (Obanya, 1986).

Like a photograph or painting, a good poster requires a Centre of interest. But in a poster, this center must be particularly strong and commanding. For this reason, subtlety is usually avoided

in favour of unmistakable contrast and emphasis. Colour provides meaning and expression as well as beauty in a good painting. It provides force and contrast as well as attractiveness in good poster. Although both are essential, these use of colour are not the same. Other posters use a complete photographic background for their principal theme or even a combination of scenes. In such instances the photographic background is normally subdued so that the message carried by the poster will stand out clearly (Obanya, 1980).

However, posters are used in many ways. The first uses may be called motivational or simulative. The good poster can be used effectively in arousing curiosity and interest. A poster may also be used as a reminder or to create awareness of a subject. It is to remember that the remarkable ability of human mind to become accustomed and adopted to its surroundings. Like bulletin board which is seldom changed, the poster that is seen too often tends to become simply a part of the environment. A poster may continue to be valuable after its initial impact has passed. This may be called the atmosphere or environmental use. Good posters as well as pictures, paintings, and exhibits assist in creating an atmosphere or feeling. Attractive poster materials enhance this atmosphere, particularly if they are artistic (Farrant, 1980).

2.6.10 Objects and Specimen

A collection of real things for instructional use refers to objects. On the other hand, a specimen is a sample of the real object or a material (Aina and Olutade, 2006). While using the specimen and objects as teaching aids, a teacher must keep the following points in his/her mind:

- i. Plan your teaching with certain simple and direct observations of the object or specimen being referred to.
- ii. Ask questions from the students to elicit more details of the features of the object or specimen under observation.
- iii. Clarify and emphasize important structural details of the object or specimen under observation.
- iv. Provide review and practice to make learning permanent

Objects and specimens can be procured from many sources such as:

- i. Local markets

- ii. Manufacturers and factories
- iii. Discarded material from the houses
- iv. Specimen found in the nature can be collected by students from field trips and nature hunts
- v. Plasters casts can be purchased
- vi. Wild flowers, leaves shells, stones butterfly moths, insects can also be procured.

There are a number of advantages associated with the use of spacemen:

- i. Collection of objects and specimens by students requires interaction with others leading to development of social skills and values.
- ii. Students when collecting and displaying objects and specimen derive satisfaction of contributing to the school and teacher something worthwhile.
- iii. Student's power of observation and first-hand experiences is enhanced by collection of objects and specimens.
- iv. Student's personal collection of objects and specimen can be good source of doing investigatory projects.
- v. Collection of objects and specimens become an interesting educational pursuit of the teacher and students alike.
- vi. It arouses some interest among students in learning.
- vii. Objects and specimens involve all the five sense in the process of learning
- viii. It heightens the reality in the class room
- ix. It makes teaching lively (Aina and Olutade, 2006: 25).

2.6.11 Audio aids

Audio aids depend on single sense that is hearing. An attentive and disciplined listener is the key goal of success through this form of communication. Audio materials offer a wide range of opportunities for group or individual use, they can be used to deliver instruction involving verbal information and also for guiding the learning of intellectual and motor skills. Audio materials are also relevant for learning objectives related to the affective domain of learning. Audio material is equally good for all types of instruction from the precision of speech to the mental imagery formed by music and sound effect (Kemp & Smellie, 2009).

The audio media is considered as recording mode on majestic tape, on disc, or on motion picture's sound tracks. These are reproduction of actual sound effects. Sounds are genuine and are presented in the sequence in which they actually happen unless the recoding is edited. One of the most important types of audio recording is verbal materials. Audio recording may be used by individuals or played directly to an audience or over radio or central sound system. Most people can learn the basic skills needed to produce the audio materials. The skilled person is able to perform every action in audio writing, presenting, recording, editing. Audio is also accessible as far as listener is concerned. The finished product can be transferred to a cassette (Raines and Williamson, 1995).

Audio is relatively easy to produce so is relatively inexpensive, and an ideal medium for delivering the message to anyone, anywhere. Audio involves just four components; speech, sound effects, music, silence. The above components create mental pictures for the listener. One person with basic recording equipment and skills, can transport the listener into an unlimited number of situations, create different modes, take the listener anywhere in the world, and beyond. One of the advantages of audio is that it is direct and delivered on a one to one basis. Audio reaches out to engage the interest of the listener. The listener can't put his mind in neutral and watch the petty pictures fed to him on a screen. He has to make his own, and that creates involvement. To make the audio programme well, the speaker must speak with confidence, fluency, and clarity and with enthusiasm. The script must be crisp, concise, and conversational with flair and imagination (Reece and Walker, 2005).

Audio can be used in so many ways and one of them is direct teaching, using a recording of an expert's lecture. Audio can also be used to provide support materials to individual students. The students can also listen to the audio package in so many places not only in the classrooms. The students can also stop the audio tape whenever they want. They many want to re-tape on a particular point or forward the tape to appropriate points. By timing various points on the tape or noting the counter number, this can be done with case. Sometimes the students fail to understand the point when first heard. Their ability to play a tape is of prime importance in the use of audio learning materials. The audio materials give clear acoustics. Many teachers/lecturers/instructors have little idea of using their voice properly when speaking to the audience. With audio the listener has the opportunity to hear the message clearly put on a one to one basis, and easy to

listen. The presenter plays an important role in the audio. He can also call upon the other voice, dramatization, interviews, sound effects, and music to illustrate the materials. All this make the listener to concentrate on and understand the facts being presented (Ikot, 2008).

2.6.12 Radio

Radio is a device with enables effective and efficient communication to masses of people at a time. For instance, in Zambia more people especially in rural areas have access to radio which makes it one of the most effective media of communication. Radio is a good source of communication of ideas. It gives news-bulletins, special programmes for rural areas and many more. It is also a good source of disseminating information for health workers and farmers. In case of audio-aids, the message has to be simple so that the people; can understand and act. The broadcaster has to get and hold the attention of the audience, otherwise the message is lost. The radio receiving set receives only one selected programme at a time, and conveys the same through its speaker. The station is selected by a tuner of receiving set, which tunes the set to the frequency of the station. The movement of the tuner over the dial of the radio set is controlled by a knob. The entire broadcast frequency of the tuner is divided into a number of bands, each band including a small range of frequencies or wave-lengths. A band selector switch or knob is incorporated in the Cabinet of the radio. There is also an on and off switch and volume control are incorporated in a single knob. A radio can be operated by dry battery wet battery or electricity. For rural areas with no electricity, dry battery sets are generally used (Raines and Williamson, 1995).

Radio as an instructional media is associated with a number of advantages. Firstly, radio is inexpensive hence making it quite a suitable audio aid for reaching the masses, especially in the interior of villages, where means of communication and facilities are very few. Radio sets are also easily available. There has been a lot of production of radio sets which has resulted in the cost of purchasing one considerably being reduced. Radio is available these days to almost all families, even in the rural areas. Furthermore, a radio leaps barrier of time and space. A historical event can be reproduced on a radio set as well as a live broadcast can be transmitted from one corner of the world to another. Radio can reach more people more quickly than any other means of communication. It can also reach illiterates (Raines and Williamson, 1995).

2.6.13 Audio Tape Recorder

An audio tape recorder, tape deck, or tape machine is a sound recording and reproduction device that records and plays back sounds usually using magnetic tape for storage. In its present-day form, it records a fluctuating signal by moving the tape across a tape head that polarizes the magnetic domains in the tape in proportion to the audio signal. Tape-recording devices include the reel-to-reel tape deck and the cassette deck, which uses a cassette for storage. It is perhaps cheapest and most practical aid. It can be used to play a running commentary or to provide sound support, to what is being presented on the screen through slides. Apart from recording conversation speeches, it can be used for dictation. For training professionals in the art of speaking a tape recorder can play a significant role (Bates, 1981).

The use of magnetic tape for sound recording originated around 1930 in Germany as paper tape with oxide lacquered to it. Prior to the development of magnetic tape, magnetic wire recorders had successfully demonstrated the concept of magnetic recording, but they never offered audio quality comparable to the other recording and broadcast standards of the time. This German invention was the start of a long string of innovations that have led to present day magnetic tape recordings (Mason, Seligman and Graham, 1985).

Magnetic tape revolutionized both the radio broadcast and music recording industries. It gave artists and producers the power to record and re-record audio with minimal loss in quality as well as edit and rearrange recordings with ease. The alternative recording technologies of the era, transcription discs and wire recorders, could not provide anywhere near this level of quality and functionality. Since some early reinforcements improved the fidelity of the produced sound, magnetic tape has been the highest quality analog recording medium available. As of the first decade of the 21st century, analog magnetic tape has been largely replaced by digital recording technologies (Reiser and Gagne, 1983).

One great advantage of the audio cassette is that it can be designed to be used on its own or with visuals. Another advantage of the audio cassette is the number of traditional production styles that can be employed. For example, drama, documentary, docudrama and narratives may be used in any number of disciplines (Schramm, 1977).

2.6.14 Audio-Visual Aids

Rather (2004) define audio-visual aids as those instructional devices which are used in the classroom to encourage learning and make it easier and interesting. He adds that audio-visual aids are types of instructional devices that integrates picture and sound.

Audio-visual aids must be seen in their relationship to teaching as a whole and to the learning process as a whole until the teacher understands the relationship between audio-visual aids and teaching learning process. Audio-visual aids are produced, distributed and used as planned components of educational programmes. Audio-visual aids are multisensory materials which motivate and stimulate the individual. Audio-visual aids make dynamic learning experience more concrete. Audio-visual aids are sensitive tools used in teaching and as avenues for learning. These are planned educational materials that appeal to the sense of the people and quicken learning facilities for clear understanding (Chandler, and Cypher, 1948).

Modern educational theory recognizes the importance of pupil interest. Audio-visual aids, wisely selected and intelligently used, arouse and develop intense interest and motivate the pupil's learning. Furthermore, properly motivated learning means improved attitudes, enriched experiences, and more wholesome living. Because the individual learns first through his sensory channels, such learning is usually the most natural and consequently the easiest when the pupil sees, hears, touches, tests, and smells, his experiences are direct, concrete and more or less permanent (Chandler, and Cypher, 1948).

2.6.15 Television

Television is the most powerful medium of mass communication which has ever existed and it has changed our lives in many ways. Television is already being used to spread education related messages. Television shows the actual picture, figure or diagram, along with the hearing sound. Television has an advantage over radio, where the audience is only listening. The movement of the pictures hold the attention of the audience. Most of the homes in cities have a television set. In Zambia with increase in electrification especially under the rural electrification programme, televisions are now available in villages also (Dent, 1934).

2.6.16 Overhead Projector

Using the overhead projector, transparent materials are projected so that a group can see. It is simple to operate and it is a versatile material for teacher use. Transparency can face the audience from the front of the room and maintain eye to eye contact with students while projecting transparencies in a lighted room (Blyth, 2001 and Kemp & Smellie, 2009).

2.6. 17 Filmstrip Projector

A filmstrip is a roll of 35 mm transparent film containing a series of related still pictures showing one concept at a time. A filmstrip can either be of a single or double format (Ikot, 2008). Filmstrip can be used to teach skills, show relationships in order to convey knowledge, to affect attitude through individual and independent study groups or other tutorial groups viewing.

2.6. 18 Film Projector and Video Player Projector

Film projector and videotape projector are used to project motion pictures, when motion is a significant factor of a subject. Educational films are in black and white and colour. There are also sound and silent motion pictures. Videotape availability has further widened the possibilities for the use of motion pictures as they can be shown through monitor or projected using video projector or through the digital projector for group use. Motion picture are relevant for all subject discipline. Motion pictures when accompanied by sound may constitute a very effective way of emphasizing distinctive features for the tasks, which need distinguishing the visual aspects of simulation. Motion pictures are also very good for ensuring students' positive attitude toward the subject of instruction. They can also be used to modify student's attitude in such areas like ecology, good work habit, hygiene in health education and so on (Blyth, 2001 and Kemp & Smellie, 2009).

2.7 Importance of Instructional Media in Functional Adult Literacy programmes

According to Azikiwe (2007) cited in Yildirim (2008), instructional media covers whatever the teacher uses to involve all the five senses of sight, hearing, touch, smell and taste while presenting his/her lessons. A range of studies explains the significance of instructional media for effective teaching and learning. A study conducted by Fidanboylu (2014) revealed that the use of visual aids during the teaching motivates the learners and reinforces the concept being learnt.

Furthermore, it provides exciting learning experiences and helps to improve learners understanding. Makewa, et al (2012) indicated that media resources are useful in language instruction. They also argue that instructional resources are vital to the teaching of any subject. In Ghana, a study of Seth (2009) indicates that lack of wall charts, models and other conventional media to compliment the use of chalkboards and textbooks in the schools increased difficult for teachers to offer quality teaching and learning to promote high academic performance.

Chinooneka and Mupa (2015) conducted a similar study in Zimbabwe and discovered that teachers' failure to use a variety of media in teaching and learning process resulted into failure in grasping basic skills of reading and writing. The use of instructional media makes the learning process more effective because it builds greater understanding, reinforcement and retention of the subject matter. This is supported by Schofield, et al (1998) as cited in Wamalwa and Wamalwa (2014) who buttressed that when instructional media are incorporated in the teaching and learning process, learners can easily and effectively understand and retain what is being taught in the classroom.

2.8 Selection of instructional media

This section looks at studies linked to the selection of instructional media in teaching in Africa that can be related to the Zambian context.

Over the years, scholars have debated about the criteria to be followed when selecting instructional media. Studies have been conducted to quantify and validate various criteria. These criteria provide an understanding that the different criteria are suitable for different situations Smaldino, Lowther and Mims, 2004).

For instance, a study conducted by Strauss and Frost (1999) on selecting instructional media for the marketing classroom identified nine key factors that should influence media selection: institutional resource constraints, course content appropriateness, learner characteristics, professor attitudes and skill levels, course learning objectives, the learning relationships, learning location, time (synchronous versus asynchronous), and media richness level. These nine factors can be broken down into three major concepts for selecting instructional strategy. Reiser and Dick (1996) call the three concepts: practicality, student appropriateness, and instructional

appropriateness. These factors should be considered to ensure that the best experience for the learners, the school, and oneself as the teacher. However, this study does not necessarily state exactly the criteria to be taken into consideration when selecting instructional media in functional adult literacy programmes.

In a study on teaching aids as a panacea for effective instructional delivery in Biology by Iwu, Ijioma, Onoja and Nzewuihe (2011) instructional media should be selected on the basis of instructional task. The behavioral objectives, content learning activities and evaluation instruments should be taken into consideration by the teacher in the selection and development of instructional media. Similarly, the target audience attributes should be taken into consideration. The attributes include the learners' features, level of understanding, age, physical skills, learner's experiences and socioeconomic background. The economy should also be considered when selecting instructional media. The available resources, technological advancement, degree of urbanization, economic climate of the society where the materials will be utilized, feasibility and acceptability of the selected instructional media are amongst the things considered in selection of instructional media. Environmental factors should also be considered when selecting instructional media. This consists of the available educational infrastructure and educational community such as people, equipped library, laboratories, workshops, water supply, electricity and personnel. Lastly, dynamic variables are key when selecting instructional media. Dynamic variables include the size of the target audience, the classroom social climate, sitting, viewing and listening arrangement, available time space, teachers' competence and the desired level of learners' response and participation are to be seriously considered in decision, selection and development of instructional media. This study is different from the present study in the sense that it focused on selection of instructional media in delivery of biology lessons while the current study focuses on selection of instructional media in functional adult literacy programmes.

Calder (2008) conducted a study on the selection and evaluation of audio-visual media for supporting learners with behavioral problems. The aim of this research was to make recommendations how parents and educators can select and use audio-visual media for supporting learners with behavioral problems. A literature study was conducted on behavioral problems and on the use of audio-visual media to address these. Thereafter an empirical investigation was done by means of a case study design. A purposive sample was chosen from

Grade 10 and 12 learners in Pietermaritzburg. The most important findings were that audio-visual media can be selected by means of five criteria related to content, accuracy and appropriateness, diversity and quality. The major weaknesses of this study are that it only focused on audio-visual media neglecting the other types of instructional media. Additionally, this study was conducted on pupils chosen from grade 10 and 12 classes which makes its findings not applicable to the current study.

Another study conducted by Ibe-Bassey (1988) on “how Nigerian teachers select instructional materials” established that, teachers were influenced by content of lessons to be taught and by their professional training rather than by the stating of behavioral objectives.

Fika Megawati (2010) conducted a study on the use of Instructional Media in the teaching of English at MAN Bangil. This was a descriptive qualitative research. The subjects of the study were the English teachers and 73 students consisting of 42 regular students and 31 special students. The findings of the study revealed media selection was based on the instructional objectives, the materials, class conditions, and the accessibility of media. Secondly, the instructional media used in conducting English instruction varied from conventional to electronic-based media, and mostly the media implemented in the class were pictures. The teachers also used the media for many kinds of class activities. Besides individual work, the teacher used media for pair and group work. The findings of this study cannot be generalized to the Zambian setting owing to the geographical differences since it is foreign.

Clark (1983) cited in Suzuki (1995) argues that a number of factors to be considered in the selection of media be extremely practical. He adds that such factors should include which media is easy to use, or which media incurs less costs for preparing materials. Other factors may be considerations required for implementation of instruction depending on class conditions, including which media can more flexibly respond to curriculum changes. Needless to say, these practical factors are important considerations in the selection of media. This study does not take into account the need to involve the adult learners in selecting instructional media and does not specify exactly the role of the adult learner in selecting instructional media.

2.9 Challenges of using instructional media

This section looks at studies linked to challenges of using instructional media in teaching.

In a study conducted by Ng'eno (2009) on “challenges facing effective use of geography instructional resources by teachers in public secondary schools in Kenya, it was revealed that instructional resources like textbooks were used but they were inadequate. The study showed that most of the teachers never used computer at all since most of them were not computer literate and for those who used, minimal time was allocated to them. The study also revealed that most of the teachers never used field trip as it requires a lot of time and finance to which most of the schools did not give priority. This study is at variance with the current study as it reported findings from Kenya which may not be generalized to the Zambian situation.

A study conducted by Omariba, Gitau and Ayot (2016) on the “challenges facing teachers and students in the use of instructional technologies in selected schools in Kisii central district in Kenya, a myriads of challenges faced by teachers and students was revealed most prominent among them were: unskilled/ICT illiteracy/limited skills, no enough/unavailability of instructional media, unavailability of funds to buy instructional technology, limited time/ lack of time and lack of support from administration/educational authorities.

Nyawira (2015) conducted a study on “Challenges facing teachers in utilizing instructional resources when teaching mathematics in public secondary schools in Nairobi in Kenya”. The findings of the study revealed that the significant challenges facing teachers in utilizing instructional media in teaching included; inadequate instructional resources, inadequate teacher professional development, heavy load and large class sizes. The study further found out that most of the teachers interviewed were qualified and had been trained on the use of instructional media in teaching but follow-up mechanisms like in-service training were inadequate hence making it difficult for them to adapt to certain instructional media.

Chizoba (2009) conducted a study on problems of using instructional materials in the teaching of social studies in Junior Secondary Schools in Dunukofia Local Government Area of Anambra State in Nigeria. The findings of the study revealed that the major challenges of using instructional media included the shortage of materials, laziness amongst the teachers, lack of

fund for the purpose of instructional media, and time. It was also observed that the performance of the students has a lot to do with the use of instructional media during classes.

Achimugu and Onojah (2017) conducted a similar study. The finding of the study revealed that inadequate training, poor funding, lack of functional workshops, lack of supervision of chemistry teachers, poor motivation, large class size was among the challenges hindering effective production and utilization of teacher-made instructional media in teaching chemistry.

Ngimi (2013) conducted a study on opportunities and challenges of integrating ICTs in Education Delivery in the Institute of Continuing Education at the Open University of Tanzania. The purpose of this study was to investigate the opportunities and challenges for integrating ICTs in education delivery in the Institute of Continuing Education at the Open University of Tanzania. Specifically, the study investigated lecturers' and students' perceptions about ICTs, competence in ICT application and access to ICTs facilities. The study used multiple holistic research design. Structured questionnaires were used to collect data from 10 lecturers in ICE and 200 students drawn randomly from five selected regional centers (Ilala, Temeke, Kinondoni, Tanga and Morogoro). The findings revealed that there are several opportunities for successful integration of ICT in education delivery in ICE, which include positive perception of lecturers and students towards integration of ICTs in education delivery, possession of competency in basic ICTs applications and availability of access to basic ICT facilities such as computer and internet in offices, library internet cafes and at home for some of the lecturers and students. However, several challenges were identified to constrain successful integration of ICT in ICE. These included lack of pedagogical competences by majority lecturers, lack of ICT technical support at the institute level and access to ICTs due to inadequate infrastructure in the institute.

Boadu (2014) conducted an examination of the use of Technology in the Teaching of History. A study of selected Senior High Schools in the Cape Coast Metropolis in Ghana. The study was modeled on the descriptive survey design with a sample size of 159 respondents, made up of 153 history students and 6 history teachers from three selected schools. The instruments used to collect data were the questionnaire and the interview guide. The study found that technologies such as computers, projectors, internet, and audio-visual, could be used to teach history, and students were also found to portray positive attitudes in class when technology is used to teach. Finally, the study revealed that teachers face the challenge of unavailability of technology

resources, lack of enough time, and lack of motivation, in their attempt to use technology in class. The study recommended that seminars should be organized for teachers to expose them to the types of technologies and how to use them. The other recommendation was that relevant authorities should make technology resources available in schools, and also teachers should be innovative and creative by using a variety of techniques in their lessons.

Mustapha (2002) identified a number of challenges teachers face in the utilization of instructional media which includes poor teacher's professional knowledge and technical know-how to teach practical skills content areas of electronics. Lower teacher competence in the area of effective instructional resource utilization and failure to appreciate the importance of using instructional materials in promoting and understanding of instructional media principles are the other challenges teachers face in the utilization of instructional media. The other challenges are insufficient awareness of types of instructional materials for use in teaching different lessons and insufficient time allocation to accommodate effective instructional materials utilization during lessons. Lack of finance to acquire or improvise needed instructional media and environmental factors such as litter or non-availability of equipped library, laboratories, workshops, water supply, electricity and personnel also affects effective utilization of instructional materials. Poor maintenance culture of existing instructional media especially projected and manipulative types and lack of opportunities for in-service training/refresher course for serving teachers to update their knowledge periodically in the light of new research findings and resource development are challenges teachers face in utilizing instructional media.

Obwoye and Mosol (2016) identified a number of challenges in using instructional media in trainings and one of them is the fact that some instructional media technological implementation process takes time to integrate with current faculty training systems. Instructional media implementation process involves a lot of money, strength and time and need most of the schools to have enough resources to adapt new technology. Implementation of instructional media being a dynamic process requires constant preparedness by teachers and educators which can be a constraint to some of teachers. The other challenge of using instructional media is the introduction of untested media resources for instruction. Emergence of a large and often contrasting huge variety of media resources for instruction is another challenge. This development creates confusion in the development and use of media resources.

Rahman (2015) conducted a study of challenges of using Technology in the Secondary English Language classroom. The aim of the study was to find out whether using technology for language teaching in the Secondary English Language classrooms brings about a significant change in students' attitude, motivation and participation. According to the research, capable teachers are in favour of using technology in the English Language classroom. To collect data for the research, a total of 30 secondary school students and 4 teachers were selected. The researcher followed a mixed method and used questionnaires and interview questions for data collection. Later, the collected data were analyzed with SPSS and Ms Excel. The results revealed that, teachers who use technology in the English language results showed that students are more responsive, spontaneous and co-operative in the technological advanced classroom as the lesson becomes hands on and lively for the students. On the other hand, the availing of technology in the English language classroom is easier said than done from the teacher's perspective that may not always have the materials ready as necessary. Most of the teachers were not interested in using technology in their classroom because of the time limitations, lack of knowledge in using or incorporating technology in their lessons, strict school authority rules, and electricity problems and many more. Based on the findings, some recommendations were proposed such as: the school authority needs to train secondary teachers on using ICT based materials, which will assist them to create digital content in line with ICT equipment. Hence, by enabling the teachers to take practical ICT approach in the classroom, the learning atmosphere in the classroom can be made more encouraging and productive for the students.

Mambwe (2016) conducted a study on Barriers to effective teaching of computer studies in selected Government Junior Secondary schools of Mwanabombwe District in Luapula Province. The study aimed at investigating the barriers to the effective implementation of computer studies curriculum in selected junior public secondary schools of Mwanabombwe District in Luapula Province. The study further sought to establish the availability of ICT infrastructure and equipment in the selected schools. It also sought to establish the effects of teacher training and exposure to ICT on the implementation of computer studies curriculum in Mwanabombwe District. The third objective was to explore the measures that could be put in place to enhance the implementation of computer studies curriculum in the selected schools in Mwanabombwe District. The target population was 15 junior public secondary schools in the District. A descriptive survey design was used. Purposive sampling techniques and simple random sampling

techniques were used to select a study sample of 10 schools. Additionally, 34 respondents were captured as follows: 10 head teachers, 20 computer teachers and 4 Education Standards Officers (ESOs). This study established that only 10% of the schools sampled had implemented computer studies curriculum effectively. Inadequate funding to procure computers, their accessories and set up infrastructures such as computer laboratories, lack of trained computer teachers and inadequate revision materials were found to be the major challenges in the implementation process.

Most of these writings and studies reported findings from foreign countries that could not be generalized to the Zambian context.

2.10 Ways to enhance the utilization of instructional media

A study on effects of utilization of instructional materials on the academic performance of senior secondary school students in Ikwuano Abia State was conducted by Akpan et al (2017). The study sought to analyze the effects of the accessibility and utilization of instructional materials by teachers on the academic performance of secondary school students in Ikwuano Local Government Area of Abia State, Nigeria. Multi-stage sampling procedure was used in the selection of the sample size. The sample size for the study was 120 students and 120 also for teachers. The instruments for data collection were the questionnaire, a pre-test and post-test as applicable. Data collected were analyzed using mean and simple percentage. The findings were that the disposition of the teachers affected the accessibility and utilization of instructional materials, and that students who were taught with instructional materials performed better than those who were not. This study was conducted in Nigeria hence creating a population gap.

Based on the findings it was recommended that teachers should be made to undergo periodic trainings to update themselves on the modern trends in instructional technology. The study also recommended that the local, state or national education resource centres should establish an instructional material bank within the reach of the teachers so that they could easily access one when the need arises. It was also recommended that there is the need to expand the scope of instructional materials from chart, pictures and many more to overhead projectors, slides and web-based instruction for personalized learning which will involve the modern trends in information and communication technology (Akpan and Ugo, 2017).

Tety (2016) conducted a study on the role of instructional materials in academic performance in Community Secondary Schools in Rombo District. The purpose of this research work was to examine the extent to which the selected community secondary schools in Rombo District utilized quality and adequate instructional materials in classrooms and how this has promoted academic performance of students. This research was based on three objectives including: to explore the views of teachers and students on the extent to which instructional facilities affect student performance, to examine the challenges that teachers in community secondary schools face in accessing instructional materials and to assess the strategies that teachers use to minimize the challenges of attaining and using quality instructional materials. The study adopted a cross sectional survey design. The study population involved all community secondary schools in Rombo District. Out of 38 community schools in Rombo District 5 schools were randomly selected for data collection. In each school, 5 teachers and 20 students filled semi-structured questionnaire. Also heads of each school and 1 secondary district education officer were interviewed. The following were findings of the study: first, instructional materials are the key to teachers' and students' performance. Secondly, most community secondary schools in Rombo District suffer shortage of essential teaching and learning materials. Thirdly, the study revealed that teachers used different strategies to minimize the challenges of attaining and using quality instructional materials like borrowing books and improvisation. The study recommended that the government should budget sufficient funds for improving the availability of instructional materials in all secondary schools.

Dlamini (1995) conducted a study on how teachers use instructional materials in teaching junior primary mathematics with specific reference to the Mathematics Centre for primary teachers in South Africa. The key question of the study was to ascertain whether teachers used instructional materials in ways that promote quality education. The findings of the study revealed that teachers used instructional materials in ways that were appropriate and contributing to improvement in the quality of education. However, the study recommended for the need for advanced training of teachers on the use of instructional materials.

Mwalyego (2014) conducted an investigation on the utilization of instructional materials in pre-primary schools in Morogoro Municipality. The study was done in four primary schools in Morogoro municipal council. This study focused on pre-primary units established in public

primary schools. It was guided by the following three research objectives: the first one was to observe the availability of instructional materials for pre-primary unit. The second objective was to assess the adequacy of the available instructional materials in pre-primary unit. The last was to examine the extent to which pre-primary classes utilize instructional materials during classroom instructions. The sample comprised 40 respondents; four heads of school, four academic teachers, four lesson teachers and 28 pupils. The instrument used for data collection was questionnaire, observation, interview and documentary review developed by the researcher. The instruments were validated first by the supervisor then the pilot study. The major findings of this study, revealed that there was inadequacy of instructional materials in pre-primary units, whereby the few available ones were mainly for teaching the 3R's.

It was also revealed that the utilization of instructional materials was affected by the teacher-pupil ratio, whereby the utilization was minimal in schools with high teacher-pupil ratio. Also, the classroom space and arrangement were poor such that effective facilitation by class teachers in using learning materials was restricted to only a few pupils. On the other hand, time scheduled for instruction was too short for effective utilization of instructional materials. Although the children enjoyed learning by using instructional materials, most of them did not have the opportunity to effectively utilize available learning materials and a wide variety of instructional materials outlined in the syllabus. Based on the findings it was recommended that, there should be increased investment on pre-primary education especially those pre-primary units established in public primary schools (Mwalyego, 2014).

The study is at variance with the current study. The foregoing study had a large sample and was conducted in secondary schools, while the current study was conducted in sub centres in Lusaka District.

2.11 Identified gaps and justification for the current study

From reviewed literature, it has been revealed that the three objectives and the problem for this study have not been addressed by other researchers in this area. This is attributed to the fact that most of the studies reviewed reported findings from other countries which may not be generalized to the Zambian situation. Furthermore, most of the studies reviewed revealed population gaps as they were not conducted in in Zambia.

2.10 Summary of Chapter Two

This chapter has presented literature related to the study. It has informed and shaped the study as it has allowed the researcher to interact with different existing literature pertaining to the use of instructional media in teaching and learning. The chapter has also explained the concept of instructional media. It has further highlighted the criteria teachers follow in selecting instructional media and the challenges encountered by teachers when using instructional media as well as the solutions to these challenges. Additionally, the chapter has highlighted the gaps and justification for conducting the current study. The chapter that follows presents the methodology of the study.

CHAPTER 3: METHODOLOGY

3.1 Overview

Chapter 2 provided a review of extant literature. This chapter discusses the research methodology that was used in this study. It is organized under the following sections: research design, research site, and population, research instruments and data collection procedures. It also brings out the data analysis, limitations of the study and ethical considerations.

3.2 Research design

A research design is a systematic, subjective approach used to describe life experiences and give them meaning (Phiri, 2015). This observation is supported by Yin (2003), who defines research design, as “...a structure of an enquiry which is a logical matter rather than a logistical one”. Similarly, Beri (2007:51) defines a research design “as a design that specifies the methods and procedures for conducting a particular study”.

This study adopted the constructivist or interpretivist research paradigm to investigate the use of instructional media in Functional Adult Literacy Programmes in Lusaka District. Sichula, Luchembe and Chakanika (2016:138) quoting Elizondo et al (2013) state that this paradigm is interested in understanding and rebuilding of facts. Within the framework of this paradigm, a case study research design was employed to collect in-depth information on the subject under study. Chilisa and Preece (2006) note that a case study is a detailed study of a single phenomenon or unit of analysis with the aim of making a holistic description of those particular phenomenon.

There are several types of case study. Yin (1984) identifies three such types in terms of their outcomes namely: exploratory (as a pilot to other studies or research questions); descriptive (providing narrative accounts); explanatory (testing theories). Exploratory case studies that act as a pilot can be used to generate hypotheses that are tested in larger scale surveys, experiments or other forms of research, e.g. observational. Mertens (1998: 2 – 7), is in agreement with the above and argues that the case study leads the way in such endeavours. A similar observation is made by Wamahui and Karugu (1995:114 – 120), who credit the case study with the ability to provide holistic information on particular case being studied. However, in this study a

descriptive case study was used to collect data from the respondents because it allowed the researcher to obtain narrative accounts from the respondents pertaining to selection of instructional media in functional adult literacy programmes in Lusaka District.

Another reason why a case study design was selected was that according to Koul (1998), a case study “can tell us about what exists at present by determining the nature and degree of existing conditions, because of the method’s apparent ease and directedness. In addition, the case study design was selected because it deals with a full variety of evidence-documents, artifacts, interviews and observations (Yin, 2003).

3.3 Population

Fraenkel and Wallen (1993) cited in Phiri (2015) define universe population as the group of interest to the researcher, the group whom the researcher would like to generalize the results of the study. In this study, the universe population meant a group of individuals that had the same characteristics from which the sample was drawn. Consequently, the universe population for this study comprised:

- a) All the 8 sub centres (Ngwerere, Mandevu, Matero, Chawama, Kabwata, Lusaka Central, Munali and Kanyama).
- b) All the 16 facilitators in the 8 sub centres.

3.5 Data Collection Procedure

Kombo and Tromp (2011:99): define data collection “as gathering specific information aimed at proving or refuting some facts”. They add that in data collection the researcher must have a clear understanding of what they hope to obtain and how they hope to obtain it. The researcher must have a clear vision of the instruments to be used, the respondents and the selected area.

Similarly, Kothari (2004) adds that the task of data collection begins after a research problem has been defined and research design/plan chalked out. While deciding on the method of data collection to be used for the study, the researcher should keep in mind two types of data: primary and secondary.

Therefore, in the quest to collect primary data, a letter of introduction was collected from the Directorate of Research and Graduate Studies (DRGS) and clearance from the Ethics Committee was sought. Furthermore, the researcher sought permission from the permanent secretary in the Ministry of Community Development and Social Welfare to collect data in Lusaka District. Once permission was obtained from the Ministry of Community Development and Social Welfare, the researcher proceeded to the District Community Development Office to seek further permission to approach the district sub-centers. At the Sub-centres, an informed consent was sought from all the participants in the study. Semi-structured interview guide was availed to the participants before the interview so that they could prepare. Once all was set the interviewer facilitated the discussions and recorded the responses using a phone.

3.5 Data Collection Instruments

Parahoo (1997:52) defines a research instrument “as a tool used to collect data. It is a tool designed to measure knowledge, attitude and skills of research respondents. The major instruments used in this study to collect data was semi-structured interview guide.

3.5.1 Semi-Structured Interview

Bryman (2012) defines an interview guide as a brief list of memory prompts of areas to be covered that are often employed in unstructured interviewing or to the somewhat more structured list of issues to be addressed or questions to be asked in semi-structured interviewing. In this study a semi-structured interview guide was used to collect data from the facilitators because it offers versatile way of collecting data which allows an interviewer to use probes with a view of clearing up vague responses or to ask for elaboration of incomplete answers (Komb and Tromp, 2006). The interviews were conducted from the sub-centres according to the prior arrangements that were made through the assistant community development officers from all the eight sub-centres. Responses were written in a book and permission was sought from the respondents to record the interviews.

Kothari (2004) reveals that the interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method can be used through personal interviews and, if possible, through telephone interviews. Personal interview method requires a person known as the interviewer asking questions generally in a face-to-face contact to the other person or persons. This sort of interview may be in the form of direct personal

investigation or it may be indirect oral investigation. In case of direct personal investigation, the interviewer has to collect the information personally from the sources concerned. In interviews the semi-structured interview guide is used to collect data.

Merriam and Simpson (1995) explain that interview adds a dimension to the gathering of survey data that is not provided by the questionnaires. Interviews have two major types of formats; structured and unstructured. The researcher who uses semi interview format rather than questionnaire has the advantage of becoming an extension of the schedule of questions. Clarification, restatement and explanation are all available for use in eliciting responses from participants.

3.6 Data Analysis

Kothari (2004) reveals that once data has been collected, it needs to be processed and analyzed in line with outlined procedures laid down for the purpose at the time of developing the research plan. This is essential for a scientific study and for ensuring that we have all relevant data for making contemplated comparisons and analysis. Technically speaking, processing implies editing, coding, classification and tabulation of collected data so that they are amenable for analysis.

According to Kombo and Tromp (2011:117), data analysis refers to examining what has been collected in a survey or experiment and making deductions and inferences. It involves uncovering structures; extracting important variables, detecting any anomalies and testing underlying assumptions. It involves scrutinizing the acquired information and making inferences. Thus, due to the nature of the study data was analysed using thematic analysis. Bryman (2012) defines thematic analysis is a term used in connection with the analysis of qualitative data to refer to the extraction of key themes in one's data.

In this study data was analyzed using the six phases of thematic analysis as propounded by Braun & Clarke (2006). The first stage during data analysis was familiarization with the data which was followed by coding. In this regard, coding is not simply a method of data reduction, it is also an analytic process, so codes capture both a semantic and conceptual reading of the data. The third step was searching for themes. A theme is a coherent and meaningful pattern in the data relevant

to the research question. Searching for themes is similar to coding the codes to identify similarity in the data. Reviewing themes was the fourth stage of data analysis. This involves checking that the themes in relation to both the coded extracts and the full data-set. The fifth stage involved defining and naming themes. Here the researcher conducted and wrote a detailed analysis of each theme. The last stage is writing up. Writing is an integral element of the analytic process in thematic analysis and most qualitative research. Writing-up involved weaving together the analytic narrative and (vivid) data extracts to tell the reader a coherent and persuasive story about the data, and contextualizing it in relation to existing literature (Braun & Clarke, 2006).

3.7 Limitations of the study

Tichapondwa (2013) defines limitations as factors that potentially compromise the validity of the study and are beyond the researchers' control. He adds that the researcher should state these factors (limitations) so that readers are aware that the study was conducted in the face of challenges to the validity of the results of the study. These limitations may be apparent at the beginning of the study but may also be clear as the study moves forward. One of the limitations of this study is that it was only conducted in the eight sub-centers in Lusaka District run by the Ministry of Community Development and Social Welfare leaving out other providers of Functional Adult Literacy as those were the only available sub-centres in Lusaka District. As such, generalization of the results should be done with caution. The other limitation encountered by the researcher was insufficient literature on pedagogy in Adult Literacy in Zambia which resulted in overreliance on literature from outside Zambia.

3.8 Ethical Considerations

Creswell (2012:169) defines ethical consideration *“as the dos and don'ts that the researcher must observe during the research process for purposes of respecting and protecting the rights of the researched”*.

All professions are guided by code of ethics that has evolved over years to accommodate the changing values, needs and expectations of the authorized bodies. Being ethical means adhering to these codes of conduct. Some professions have very strict guidelines, monitor conduct effectively and take appropriate steps against those who do not abide by the guidelines. Ethical

issues in research can be looked at as they relate to participants, researchers and sponsoring organization (Babikir, Babikir and Mabuo, nd).

Ethical issues concerning research participants include: Collecting information, seeking consent, providing incentives, seeking sensitive information, the possibility of causing harm to participants and maintaining confidentiality. Ethical issues relating to the researcher include: Avoiding bias, Provision or deprivation of a treatment, using appropriate research methodology, correct reporting and using information. Ethical issues regarding the sponsoring organization lie in the use of the collected information (Babikir, Babikir and Mabuo, nd)

Firstly, a letter of introduction was collected from the Directorate of Research and Graduate Studies (DRGS) and clearance from the Ethics Committee was sought. The researcher then sought permission from the permanent secretary Ministry of Community Development and Social Welfare, District Office as well as the sub-centres to collect data.

Participant's informed consent was assured before the researcher administered the research instruments to the respondents. This involved the researcher thoroughly explaining the purpose of the research to the participants. Confidentiality and anonymity also assured to the participants. The participants were also assured that the study had no known harm. Other things considered were the rights of the participants such as voluntary participation and that the respondents were at liberty to withdraw from the study at any given point without any repercussions. Lastly, permission to record the interviews was sought from the respondents.

3.9 Summary of Chapter Three

This chapter outlined how the research was conducted. The chapter also brought out reasons for adopting a case study research design and also discussed the data collection methods, data analysis and ethical issues. The preceding chapter presents the findings.

CHAPTER 4: PRESENTATION OF FINDINGS

4.1 Overview

In the preceding chapter, the methodology that guided this study was explained. This chapter aims to report the findings of the study that was conducted on selecting instructional media in Functional Adult Literacy Programmes in Lusaka District: Challenges and possible solutions. Qualitative findings obtained from participants according to the research questions will be presented. The findings will be presented according to the subheadings from the research questions that were raised. The research questions will be answered using qualitative findings from the facilitators. The findings from the respondents were gathered by use of an interview guide. As a way of reminder, the study had the following research questions which it sought to answer:

- iv. what criteria do facilitators use in selecting instructional media to use in Functional Adult literacy programmes in Lusaka District?
- v. what challenges do facilitators face in selecting instructional media in functional adult literacy programmes in Lusaka District? and
- vi. what solutions can be implemented to solve the challenges facilitators face in selecting instructional media in functional adult literacy programmes in Lusaka District?

4.2 Criteria used in selecting instructional media

The 16 facilitators were asked to mention the criteria they used when selecting instructional media in the functional Adult literacy programmes in the respective sub-centres. The responses from interviews were analyzed and compared to come up with themes. A number of themes emerged with regards to question number one, which was: what criteria do facilitators use in selecting instructional media to use in functional adult literacy programmes in Lusaka District? In relation to question number one, the following themes emerged: availability, cost, type of learners and infrastructure.

a. Availability

The respondents explained that one of the prerequisites in selecting instructional media was availability of instructional media as it was difficult to select instructional media that are beyond the reach of the institutions. One interviewee (facilitator) remarked that:

“...when it comes to choose instructional media i look at what i have and with my experience what is always available and easy to access is the chalk and board since it is cheap and easy to use”.

b. Cost

The respondents revealed that cost of instructional media was also other criteria they followed during the selection process. They argued that running literacy programmes required teaching and learning materials which are costly to procure. One of the respondents explained:

We are failing to buy some of the instructional media like computers and projectors because they are expensive. To make matters worse we are not allocated funding by the Ministry for procuring instructional media so we end up using what is cheaper for us. Sometimes we end up asking our learners to come with whatever amount of money they can afford so that we buy some of the materials we need.

Another respondent gave out the following account:

You see here in Lusaka everything needs money which we normally don't access so it is difficult for us to dream of buying materials like books because they are out of our reach. You see books are very expensive and our students don't even pay so it makes things hard for us and there is nothing we can do. So, we just use what we can lay our hands on like this book which they have given us.

c. Type of learners

The respondents explained that when selecting instructional media consideration should be taken of the learners they are meant for. One of the respondents explained the following:

In the functional adult literacy programmes we have two groups of learners we encounter. We have those that are called genuine adult learners and lapsed adult learners. Lapsed learners are those who were once students but due to some reasons dropped out. These learners who are lapsed are easy to teach. Genuine learners are the ones who have not been to school. So, before we can pick any instructional media, we look at the two categories of the learners.

d. Infrastructure

The respondents revealed that infrastructure was another criterion when selecting instructional media. They added that in order to use certain types of instructional media infrastructure needs to be of acceptable standard. One of the respondents explained that:

We also consider infrastructure when it comes to choosing instructional media. In most cases the infrastructure we use for functional adult literacy programmes is shared with other groups like tailoring students and those involved in various empowerment programmes.

Another respondent intimated that:

Had it not been for well-wishers I think by now our students would have been learning from outside. You see here we only have one classroom which is this hall which is used for various activities depending on the programme sometimes we collide with our colleagues who conduct other programmes.

4.2.2 Summary of Findings to Question One

Question one sought to identify the criteria used by facilitators in selecting Instructional Media in Functional Adult Literacy Programmes in Lusaka District. The findings from research question one revealed that instructional media were selected based on the following: Availability, Cost, and Type of learners and Infrastructure.

4.3 Challenges facilitators face when selecting instructional media in functional adult literacy programmes in Lusaka District?

16 facilitators were asked to mention the challenges they faced when selecting instructional media in functional adult literacy programmes in Lusaka District. The responses from all the participants were obtained through interviews. The major themes that emanated from research question two were: lack of funding, infrastructure and types of learners.

a. Lack of funding

The respondents explained that lack of funding was one of the major challenges hampering the provision of adult literacy programmes in Lusaka District. They revealed that the government stopped funding the functional literacy programmes a long time ago a situation which has almost led to the demise of the adult literacy programmes in Lusaka District. One of the respondents intimated:

“...government does not fund functional adult literacy programmes because of this we are unable to procure instructional media and other teaching/learning materials. Even to motivate the facilitators we are failing most of them are teaching these programmes because of the passion they have even after not getting any allowance for teaching. A long time ago facilitators used to get honorary allowance as a token of appreciation for their good work but now times are hard, we just teach out of good will to help the learners”.

b. Infrastructure

The other challenge according to the facilitators was lack of appropriate infrastructure for functional adult literacy programme. They explained that in most cases we use infrastructure which is being provided by other line ministries like the Ministry of Local Government and Housing through the councils in the sub-centres. This infrastructure is not custom made for functional adult literacy programmes as it is made for other activities offered by the councils. One of the respondents opined:

We have challenges with infrastructure which is hampering the use of certain instructional media. Infrastructure is not readily available and what is available is not up to standard. We depend on infrastructure provided by partners like the council and the church.

c. Types of learners

The respondents intimated that types of adult learners were also a challenge when it came to selecting instructional media in functional adult literacy programmes in Lusaka District. They added that they are different categories of learners that they cater for in the respective functional adult literacy programmes. One of the respondents explained that:

“... we face challenges when selecting instructional media because of the two categories of adult learners we teach. In Literacy we have what we call genuine and lapsed learners. So, when selecting instructional media, we put in mind the two categories which make it difficult for us to choose instructional media especially if the two categories of learners are in the same class. So, in most cases we find ourselves in a dilemma and constantly question ourselves if we are teaching the two groups effectively or not. But there is nothing we can do since we have very few alternatives as most of the instructional media are not provided by the Ministry and when we go there all they say is we will let you know when we will be in a position to provide you with more instructional media”.

4.3.1 Summary of findings to Question Two

Question two sought to establish the challenges volunteer Instructors faced in selecting Instructional Media in Functional Adult Literacy Programmes. All the respondents admitted that they faced a number of challenges and some of the major themes that emanated from the interviews were: Lack of funding, inappropriate infrastructure and types of learners. Therefore, it can be concluded that unless the government through the Ministry of Community Development and Social Welfare starts providing funding functional adult literacy programmes, the programmes will continue lagging behind.

4.4 Solutions to challenges facilitators encountered when selecting instructional media in functional adult literacy programmes in Lusaka District

The respondents were asked to recommend solutions to the challenges they faced when selecting instructional media in functional adult literacy programmes in Lusaka District. Research question 3 was: what solutions can be implemented to solve the challenges facilitators face in selecting instructional media in functional adult literacy programmes in Lusaka District? The major themes that emanated from the interviews with the facilitators were: provision of funding, promotion of partnership, and capacity building.

a. Provision of Funding

All the respondents singled out provision of funding as one of the major solutions to the challenges they faced when it came to selecting instructional media. They added that it was impossible to think of using advanced instructional media like computers and projectors when they couldn't afford simple teaching and learning materials like boxes of chalk. One of the respondents explained the following:

“...government through the Ministry of Community Development and Social Welfare should consider allocating more funds to Functional Adult Literacy programmes coz as things stand the programmes are dead. These funds will enable the Sub-centres to put up appropriate infrastructure for Adult learners and also procure the latest Instructional Media. This funding will also enable the sub-centers to pay some allowance to the facilitators so that they are motivated to do the job”.

Another respondent opined:

Well you see they say money is the answer to everything so in our case I feel that the government will do better to take literacy work seriously like the way they do to formal education by also allocating funds to it. These funds will help us to build our own infrastructure and procure more literacy materials unlike what is obtaining were we fail even to buy simple books and other materials for teaching.

b. Promotion of Partnership

There was coconscious among the respondents that there was need for the Ministry of Community Development and Social Welfare to enhance partnership with the Ministry of education and other line ministries providing literacy programme so that they can share resources like instructional media. They added that the Ministry of Community Development and Social Welfare should ensure that it also networks with the non-governmental organizations that are providing literacy programmes in order for them to benefit from the instructional media they are using. One of the respondents revealed the following:

The Ministry of Community Development and Social Welfare should promote partnership with other stakeholders such as the Ministry of General Education and NGOs in order to access support in particular areas such as provision of support.

c. Capacity Building

All the respondents recommended that capacity building of facilitators was also needed. They further revealed that currently there was no uniformity among them in terms of how to teach the functional adult literacy programmes due to the different educational backgrounds of the facilitators as most of them did not have a background training in Adult Education. One of the respondents opined

As facilitators we need capacity building in form of a training were, we are taught on how to teach Functional Adult Literacy Programmes. This will also help us to be updated with the latest information concerning Functional Adult Literacy. Some of us we are trained in other areas but not in Functional Adult Literacy.

Another respondent argued that

The Ministry of Community Development and Social Welfare should endeavor to promote institutional linkages with other departments that are also providing literacy programmes in order to share notes and experiences if the running of these programmes is to improve. If this is done the ones tasked with running these programmes will be empowered with vital information which may help them as they run these programmes.

4.4.1 Summary of Findings to Question Three

Question three sought to bring out solutions to the challenges facilitators face in selecting instructional media in Functional Adult Programmes. The major solutions proposed by the respondents were: provision of funding, promotion of partnership and capacity building of facilitators in functional adult literacy.

4.5 Summary of Chapter Four

The chapter presented the findings of the study regarding the selection of instructional media in functional adult literacy programmes in Lusaka District. It has highlighted the criteria used by facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District as well as the challenges they face when selecting instructional media. The participants also made recommendations meant to address the challenges.

The succeeding chapter presents the discussion of the findings of this study using research objectives, reviewed literature and the theory of adult learning by Malcom Knowles 1980.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1. Overview

The preceding chapter presented the findings of the study whose purpose was to find out the criteria used by facilitators to Select Instructional Media in Functional Adult Literacy programmes in Lusaka District with the view to find out the challenges encountered by the facilitators in selecting the instructional media and propose solutions for the same. This Chapter proceeds with a discussion of the key findings earlier presented. As observed by David and Sutton (2004: 338) cited in Mwendalubi (2016), the discussion section should bring together the main research findings and the key elements of the literature review. Francisco (nd:1) also shares a similar view by noting that the purpose of the Discussion is to state the researcher's interpretations and opinions, explain the implications of the findings, and make suggestions for future research. It is in this chapter that the findings were interpreted and related to the purpose of the study, the theoretical framework on which this study was grounded and the studies that were reviewed.

This discussion will be guided by the following specific research objectives; i) to identify the criteria used by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka district; ii) to find determine challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District; and iii) to establish solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District.

5.2 Research objective 1: To identify the criteria used by the facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District

The first objective sought to identify the criteria used by the facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District. In this study instructional media were understood by most of the respondents as resource materials which helps to facilitate teaching and learning. It was also revealed that instructional media were selected on the basis of availability, cost, and type of learners, infrastructure and competence of the facilitator. From the findings it was also deduced that selection of instructional media varied from one sub-Centre to the other. For instance, in some sub-centres available infrastructure dictated the type of

instructional media selected by facilitators. The study also established that the most readily available instructional media in the sub centres were the chalk boards and assorted literacy books. This resulted in lack of uniformity in terms of what was being taught in the eight sub-centres. This situation unmasked the challenge of materials which has continued to hamper the provision of functional adult literacy programmes.

However, the findings are further supported by Megawati (2010) who argues that instructional media must be selected on the basis of accessibility bearing in mind the types of learners and cost. However, the findings are in conflict with the adult learning theory which encourages learners to actively participate in the learning experience by actively participating in selecting teaching and learning materials like instructional media. A primary principle according to the adult learning theory is that when designing instructional programmes a facilitator should capitalize on the learner's experience like entry behaviour which is important for the learning programmes to be meaningful (Knowles, 1984).

The findings are at variance with the findings of a study conducted by Strauss and Frost (1999) who identified nine key factors that should influence media selection namely; institutional resource constraints, course content appropriateness, learner characteristics, professor attitude and skills levels, course learning objectives, the learning relationships, learning location, time and media richness level. The findings are also at inconsistent to Ibe-Bassey (1988) whose study revealed that teacher's selection of instructional media was influenced by content of lessons to be taught and by their professional training rather than by the stating of behavioral objectives. The implication is that one of the instructional mediums selected may not be appropriate as the adult learners are not involved in the selection process which is against the recommendations of the adult learning theory which categorically states that adult learners should be actively involved in the learning process in order for learning to be meaningful to them.

5.3 Research objective 2: To determine the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District

The second objective determined the challenges faced by facilitators when selecting instructional media in functional adult literacy programmes in Lusaka District. From the findings, the facilitators revealed a myriad of challenges they encountered when selecting instructional media.

One of the challenges they faced was inappropriate infrastructure which emanated from the fact that the infrastructure being used in most of the sub centres is provided by cooperating partners like Ministry of Local Government and Housing and the Non-governmental organizations making. This situation results challenges when it comes to using certain instructional media like computers and projectors. Similarly, lack of funding hampered the use of certain instructional media. Instructional media like computers and projectors are expensive and require a lot of money to procure. Lack of funding has resulted in facilitators having no choice when it comes to selecting instructional media a situation which has resulted in them using just chalk and board which are easily accessible and less expensive to use.

The findings are supported by Omariba, Gitau and Ayot (2016) whose study revealed a myriad of challenges most prominent among them being unskilled/ICT illiteracy/limited skills, no enough/unavailability of instructional media, unavailability of funds to buy instructional technology, limited time/lack of time and lack of support from administration/ educational authorities. Furthermore, the findings are similar to Boadu (2014) who revealed that teachers face a number of challenges when selecting instructional media such as unavailability of technology resources, lack of enough time, and lack of motivation in their attempt to use technology in class.

The findings of this study are partially in agreement with a study conducted by Nyawira (2015) whose study significance challenges faced by teachers in utilizing instructional media such as inadequate instructional resources, inadequate teacher professional development, heavy load and large class sizes. This is supported by Chizoba (2009) who revealed in his study that the major challenges teachers faced in selecting instructional media were shortage of materials, laziness amongst the teachers and lack of funding to procure instructional media. The findings are different from Mustapha (2002) who identified failure to appreciate the importance of using instructional materials in promoting and understanding of instructional media principles and insufficient time allocation to accommodate effective instructional materials utilization during lessons as some of the challenges when it comes to selection of instructional media. The implication is that as long as the facilitators are not trained in Adult Education, are not motivated and a conducive environment is not put in place, Functional Adult Literacy programmes in Lusaka District will continue to lag behind (Knowles, 1980).

5.4 Research objective 3: To establish solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District

The third objective sought to establish participants' suggested solutions on how the challenges can be addressed. Based on these challenges, a number of responses were solicited from the facilitators. The recommendations for the solutions were that:

The Government of the Republic of Zambia through the Ministry of Community Development and Social Welfare should enhance partnership with other stakeholders in order to promote support in particular areas like provision of resources and capacity building of facilitators in order for them to be up-to-date with the recent trends in the field of functional adult literacy. One way in which this can be achieved was through conferences and capacity building meetings involving different stakeholders. The facilitators also emphasized the need for government to provide funding to enable the facilitators to procure instructional media for functional adult literacy programmes. Tety (2016) agrees with the current findings that the government should budget sufficient funds for improving the availability of instructional media in learning institutions.

The findings are also partially similar to Akpan and Ugo, (2017) who recommended that teachers should be made to undergo periodic trainings to update themselves on the modern trends in instructional technology. They also recommended that the local, state or national education resource centres should establish an instructional material bank within the reach of the teachers so that they could easily access one when the need arises. Furthermore, their study recommended that there is need to expand the scope of instructional materials from chart, pictures and many more to overhead projectors, slides and web-based instruction for personalized learning which will involve the modern trends in information and communication technology. The findings are different from Dlamini (1995) who only recommended for the need for advanced training of teachers on the use of instructional materials neglecting addressing the challenges of lack of funding and inappropriate infrastructure. The implication of these findings is that the stance taken by the government not to fund Functional Adult literacy programmes in Lusaka District may result in lack of development in the field of Functional Adult Literacy.

5.5 Summary of Chapter Five

This chapter presented the discussion of the findings on selecting instructional media in Functional Adult Literacy programmes in Lusaka District. First, the study sought to identify the criteria used by facilitators in selecting instructional media in Functional Adult literacy programmes in Lusaka district. Secondly, the study set out to find out the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District. Lastly, the study sought to establish solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District.

The chapter which follows presents the conclusion and recommendations made in light of the findings.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Overview

The previous chapter discussed key findings presented in chapter 4. This chapter presents a conclusion for this study and provides some recommendations based on the research objectives and questions. The objectives of this study were: to identify the criteria used by the facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District; to determine the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District; and to establish solutions to the challenges faced by facilitators in selecting instructional media in Functional Adult Literacy programmes in Lusaka District.

A case study design was adopted. Interview guide was used to collect data from the 16 facilitators from the eight sub-centres of Lusaka District who were selected purposively. The research objectives and questions were answered respectively.

6.2. Conclusion

The present study attempted to identify how instructional media were selected in functional adult literacy programmes in Lusaka district in order to determine the challenges as well as establish solutions to the identified challenges. The first objective sought to identify the criteria used by facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District. The study concluded that instructional media in functional adult literacy programmes in Lusaka District were selected based on accessibility, cost, and type of learners, infrastructure and competence of the instructors. However, there is need to consider involving adult learners in selecting instructional media in functional adult literacy programmes as this will enable the facilitators to select the most appropriate instructional media according to their preference.

The second research objective sought to find out the challenges faced by facilitators in selecting instructional media in functional adult literacy programmes in Lusaka District. The study concluded that the major challenges the facilitators encountered were; lack of appropriate infrastructure, learning patterns of the learners, challenges associated with adapting to new technology and lack of funding. Arising from this, there is need for the government to urgently

provide teaching and learning materials in order for effective teaching and learning to take place. As things stand facilitators are failing to effectively teach due to lack of materials.

The third research objective and question were aimed at establishing participants suggested solutions on how the challenges can be addressed. The study concluded that the Government of the Republic of Zambia through the Ministry of Community Development and Social Welfare should allocate enough funds to the Department of Non-Formal Education which is mandated to run Functional Adult Literacy programme. The study also concluded that the Ministry of Community Development and Social welfare strengthens partnership with other stakeholders in order to promote support in particular areas such as capacity building of facilitators and also provision of resources to improve the provision of instructional media. If the problem of lack of funding is not addressed by the government, the functional adult literacy programmes will continue lagging behind. These resources will go a long way in addressing the lack of instructional media as well as the issue of honorary allowances which seems to be a burning issue among the facilitators.

6.2. Recommendations

Based on the findings, discussions and conclusion, the study makes the following recommendations:

- i. The government through the Ministry of Community Development and Social welfare should consistently fund Functional Adult Literacy programmes in order to make them sustainable.
- ii. The Ministry of Community Development and Social services should partner with other stakeholders dealing in functional adult literacy programmes in order to access some of the instructional media they use.
- iii. The Ministry of Community Development and Social Welfare should promote capacity building of facilitators in functional adult literacy.
- iv. The government through the Ministry of Community Development and Social Welfare should revise and consistently pay honorary allowance to the facilitators.

6.4. Summary of Chapter Six

This Chapter has presented the conclusion and recommendations of the study based on the research objectives, findings and theoretical framework. The study concluded that, instructional media in Functional Adult Literacy programmes in Lusaka District were selected on the basis of the following: Availability, cost, types of learners, infrastructure and competence of the instructors. The study revealed that the major challenges volunteer instructors encountered when selecting instructional media in Functional Adult Literacy programmes were: Lack of appropriate infrastructure, learning patterns of the learners, challenges adapting to new technology and lack of funding. The recommendations based on the findings were also presented. These included the need for the government through the Ministry of Community Development and Social Welfare to consistently fund Functional Adult Literacy programmes in order to make them sustainable. The study also recommended that the Ministry of Community Development and Social services should promote partnership with other stakeholders in order to promote support in particular areas such as provision of resources and capacity building of facilitators. The government through the Ministry of Community Development and Social services should revise and consistently pay honorary allowance to the facilitators.

6.5 Suggestion for further research

The study investigated the selection of instructional media in functional adult literacy programmes in Lusaka District in order to determine the challenges in order to establish the solutions. But for instructional media to be effective depends on how they are used. This study did not cover the aspect of how facilitators and students used instructional media for effective teaching and learning process.

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APPENDICES

Appendix 1: Semi-Structured Interview for Facilitators

Dear respondents,

I am a student at the University of Zambia pursuing a Masters of Education (Adult Education). I am undertaking a study *on selecting instructional media in functional adult literacy programmes in Lusaka district: challenges and possible solutions* as part of my academic requirement.

I am humbly requesting for your participation in this study as an interviewee. Please note that the information you will provide will be treated with the outmost confidentiality it deserves and will only be used for academic purposes only and your name will not be required. Please feel free as your participation in this study is purely voluntary.

1. What instructional media do you use in Functional Adult Literacy programmes?
2. Who provides the instructional media for learning?
3. What criteria do you use when selecting instructional media in Functional Adult Literacy programmes?
4. What challenges do face in selecting instructional media in functional adult literacy programmes?
5. What solutions do you think should be implemented to solve the challenges you face as in selecting instructional media in functional adult literacy programmes
6. Is there anything else you would like to add on this subject?

We have come to the end of this interview thank you so much for your participation.

Appendix 2: Consent form for participants

UNZAREC FORM 1b



THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH ND GRADUATE STUDIES

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937
Fax: +260-211-290258/293937
E-mail: drgs@unza.zm

P. O. Box 32379
Lusaka, Zambia

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

CONSENT FORM

(Translated into vernacular if necessary)

TITLE OF RESEARCH: *SELECTING INSTRUCTIONAL MEDIA IN FUNCTIONAL ADULT LITERACY PROGRAMMES IN LUSAKA DISTRICT: CHALLENGES AND POSSIBLE SOLUTIONS*

REFERENCE TO PARTICIPANT INFORMATION SHEET:

1. Make sure that you read the Information Sheet carefully, or that it has been explained to you to your satisfaction.
2. Your permission is required if tape or audio recording is being used.
3. Your participation in this research is entirely voluntary, i.e. you do not have to participate if you do not wish to.
4. Refusal to take part will involve no penalty or loss of services to which you are otherwise entitled.
5. If you decide to take part, you are still free to withdraw at any time without penalty or loss of services and without giving a reason for your withdrawal.
7. You may choose not to answer particular questions that are asked in the study. If there is anything that you would prefer not to discuss, please feel free to say so.
7. The information collected in this interview will be kept strictly confidential.
8. If you choose to participate in this research study, your signed consent is required below before I proceed with the interview with you.

VOLUNTARY CONSENT

I have read (or have had explained to me) the information about this research as contained in the Participant Information Sheet. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I now consent voluntarily to be a participant in this project and understand that I have the right to end the interview at any time, and to choose not to answer particular questions that are asked in the study.

My signature below says that I am willing to participate in this research:

Participant's name (Printed):

Participant's signature: Consent Date:

Researcher Conducting Informed Consent (Printed) *Banda Levison*

Signature of Researcher: Date:

Signature of parent/guardian: Date:

Appendix 3: Introductory letter



**THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION**

Telephone: 291381
Telegram: UNZA, LUSAKA
Telex: UNZALU ZA 44370

PO Box 32379
Lusaka, Zambia
Fax: +260-1-292702

Date: 19-09-2017

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: FIELD WORK FOR MASTERS/ PHD STUDENTS

The bearer of this letter Mr./Ms. BANDA LEVISON Computer number 2016145907 is a duly registered student at the University of Zambia, School of Education.

He/She is taking a Masters/PhD programme in Education. The programme has a fieldwork component which he/she has to complete.

We shall greatly appreciate if the necessary assistance is rendered to him/her/.

Yours faithfully

Emmy Mbōzi
Emmy Mbōzi (Dr)
ASSISTANT DEAN POSTGRADUATE STUDIES - SCHOOL OF EDUCATION

cc: Dean-Education
Director-DRGS

Appendix 4: MCDSS Research approval

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Levison Banda
C/O University of Zambia
School of Education
Department of Adult Education and Extension Studies
P.O.Box32379
Lusaka

30/05/18

To: The Permanent Secretary
Ministry of Community Development and Social Welfare
Lusaka.

Dear Sir/ Madam,

RE: Permission to conduct research in your ministry and request for data on functional adult literacy in Lusaka District

I am writing to seek for permission to conduct research in your Ministry and also to request for information on Functional Adult Literacy Programmes in Lusaka District. I am currently enrolled in the Master of Education in Adult Education degree at the University of Zambia and I am in the process of writing my master's dissertation. The study is entitled "*selecting instructional media in functional adult literacy programmes in Lusaka district: challenges and possible solutions*". This information will help me to plan as I write my research proposal.

The information needed is: Community Development Policy Document, The names of the Functional Adult Literacy Programmes being offered, total number of Instructors and Sub Centres.

I have attached copies of a summary of my proposal and introductory letter from the university. If you require any further information, please do not hesitate to contact me on phone on +260963832151 or email Levbanda@gmail.com.

Thanking you in advance for the anticipated favourable response regarding my request.

Yours Sincerely,

Lev Banda

Levy Banda

DSW
Fyga
D/RA 11/06

D/RA
Fyga
PS
11/06/18

Appendix 5: Ethical clearance



THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road | P.O. Box 32379 | Lusaka 10101 | Tel: +260-211-290 258/291 777
Fax: +260-1-290 258/253 952 | Email: director@drgrs.unza.zm | Website: www.unza.zm

Approval of Study

20th June, 2018

REF No. HSSREC: 2018-JUNE-006

Mr. L. Banda
Dag 2 UNZA GER CAMPUS,
BOX 32379
LUSAKA

Dear Mr. L. Banda,

RE: "SELECTING INSTRUCTIONAL MEDIA IN FUNCTIONAL ADULT LITERACY PROGRAMMES IN LUSAKA DISTRICT: CHALLENGES AND POSSIBLE SOLUTIONS"

Reference is made to your resubmission. The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB resolved to approve this study and your participation as Principal Investigator for a period of one year.

| Review Type | Ordinary /Expedited Review | Approval No. REF No. HSSREC: 2017-MARCH-007 |
|--|---|---|
| Approval and Expiry Date | Approval Date: 20 th June, 2018 | Expiry Date: 19 th June, 2019 |
| Protocol Version and Date | Version-Nil | 19 th June, 2019 |
| Information Sheet, Consent Forms and Dates | • English. | 19 th June, 2019 |
| Consent form ID and Date | Version | 19 th June, 2019 |
| Recruitment Materials | Nil | |

There are specific conditions that will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered

1

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to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

Conditions of Approval

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to the IRB within 5 days.
- All protocol modifications must be IRB approved by an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review and approval. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by the IRB before they can be implemented.
- All protocol deviations must be reported to the IRB within 5 working days.
- All recruitment materials must be approved by the IRB prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. Documents must be received by the IRB at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Any documents received less than 30 days before expiry will be labelled "late submissions" and will incur a penalty.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB does not "stamp" approval letters, consent forms or study documents unless requested for in writing. This is because the approval letter clearly indicates the documents approved by the IRB as well as other elements and conditions of approval.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of The University of Zambia Humanities and Social Sciences Research Ethics Committee (IRB), we would like to wish you all the success as you carry out your study.

Yours faithfully,



Dr. Jason Mwanza

BA, MSoc. Sc., PhD

CHAIRPERSON

**THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE IRB**

CC Director – DRGS
Assistant Director - DRGS