

**ARCHAEOLOGY TRAINING AND THE JOB MARKET REQUIREMENTS IN  
SOUTH SUDAN: A CASE STUDY OF JUBA UNIVERSITY**

**MARLIN PAULINO LOGGALE LEGGE**

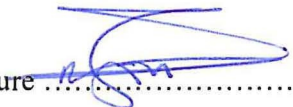
**2011/X/HD/401/MVP**

**A DESSERTATION SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF  
A MASTERS DEGREE IN VOCATIONAL PEDAGOGY OF  
KYAMBOGO UNIVERSITY**

**FEBRUARY, 2014**

## Declaration

I, **Marlin Paulino Loggale Legge**, hereby declare that this research is my original work, and to the best of my knowledge, it has never been presented by any candidate or group that I know of to any University or any other Institution of higher learning for the same award.

Signature  .....

**Marlin Paulino Loggale Legge**

**2011/X/HD/401/MVP**

Date *12.10.2.2014* .....

## Approval

We, the undersigned hereby certify that we are the supervisors of the candidate by the names of Marlin Paulino Loggale Legge; in her research study entitled “**Archaeology Training and Job Market Requirements in South Sudan: A case study of Juba University.**”

### Principal Supervisor

Signature 


Dr. Kyazike Elizabeth

Lecturer Kyambogo University

Department of History and Political Science

Date 12<sup>th</sup> February.....2014

### Co-Supervisor

Signature 

Ms. Lucy Ajambo

Lecturer Kyambogo University

Department of Human Nutrition and Home Economics

Date 02 Feb.....2014

## **Dedication**

This work is dedicated to my beloved parents, and all my brothers and sisters for the great support and encouragement.

## **Acknowledgements**

I would like to recognize the contribution of Professor Dr. Nilsson Lennart, and all facilitations from Norway and Uganda for their guidance and encouragement. I further extend my gratitude to all the Programme mentors of NOMA (Masters in Vocational Pedagogy course) for their tireless and constant guidance during the two years in this programme. Thanks to my supervisors Dr. Kyazike Elizabeth and Ms. Lucy Ajambo for their endless guidance and encouragement they rendered to me in this research. May God bless you abundantly! I also to give special thanks to Sudanese Ministry of High Education, Research Sciences and Technology, Ministry of Culture, Youth and Sports, Ministry of wildlife and Tourism and Juba University where this study was conducted. The researcher appreciates their administrators for the cooperation shown during the time of research.

I also wish to extend my heartfelt and sincere thanks to my dear parents for their endless support and persistent advice towards the accomplishment of this course; also thank my brothers and sisters for their unending support and encouragement. May God reward them abundantly!

Finally, I wish to appreciate the efforts of all NOMA cohort III students of Vocational Pedagogy 2011 to 2013 for their wonderful support, may God bless them abundantly!

## Table of Contents

Declaration.....	i
Approval.....	ii
Dedication.....	iii
Acknowledgements.....	iv
Table of Contents.....	v
List of Figures.....	ix
List of Tables.....	x
Abstract.....	xi
<b>CHAPTER ONE</b> .....	1
<b>INTRODUCTION</b> .....	1
1.1 Introduction.....	1
1.2 Background to the Study.....	1
1.2.1 Personal background.....	1
1.2.2 Background to the Study.....	2
1.2.3 The Theoretical Background.....	4
1.3 Statement of the Problem.....	5
1.4 Purpose of the Study.....	6
1.5 Objectives.....	6
1.5.1 Research questions.....	6
1.6 Significance of this study.....	7
1.7 Scope to the study.....	7
1.7.1 Geographical Scope.....	7
1.7.2 Content scope.....	8
1.7.3 Time scope.....	8
1.8 Conceptual framework.....	9
1.9 Definition of key Terms.....	11
<b>CHAPTER TWO</b> .....	13
<b>LITERATURE REVIEW</b> .....	13
2.1 Introduction.....	13
2.2 Pedagogical approaches used in archaeology training.....	13
2.3 Archaeology skills Training and the Labour Market Requirement.....	15

2.4	Improving Archaeology training for graduates to meet the Labour Market Requirements	19
2.5	Summary of the literature review	21
	<b>CHAPTER THREE</b>	<b>23</b>
	<b>METHODOLOGY</b>	<b>23</b>
3.1	Introduction	23
3.2	Study design	23
3.3	Study Population	24
3.4	Sampling Technique	24
3.5	Sampling size	25
3.6	Data collection methods and instrument	26
3.6.1	Interview	26
3.6.2	Focus group discussions	27
3.6.3	Observation	27
3.6.4	Documentary Analysis	28
3.7	Data Collection Procedures	28
3.8	Data Processing and Analysis	29
3.9	Limitations of the study	30
3.10	Ethical consideration	30
3.11	Data quality control	30
3.11.1	Validity and Reliability Instrument	30
3.11.2	Validity and reliability of data collected	31
	<b>CHAPTER FOUR</b>	<b>32</b>
	<b>DATA PRESENTATION, DISCUSSION AND INTERPRETATION</b>	<b>32</b>
4.1	Introduction	32
4.2	Pedagogical Approaches used in Archaeology Training	32
4.3	Archaeology skills Training and the labour Market Requirement	34
4.4	Improving Archaeology skill Training and Labour Market Requirements	36
	<b>CHAPTER FIVE</b>	<b>39</b>
	<b>DISCUSSION, CONCLUSION AND RECOMMENDATIONS</b>	<b>39</b>
5.1	Introduction	39
5.2	Summary of the Study	39
5.3	Discussion of the findings of the study	41
5.3.1	Pedagogical approaches used in archaeology training	41

5.2.2 Archaeology skills Training and the labour Market Requirement .....	44
5.3.3 Improving Archaeology skill Training and Labour Market Requirements .....	46
5.4 Conclusion.....	49
5.5 Recommendations.....	49
5.6 Areas for Future Study.....	51
<b>REFERENCES.....</b>	<b>52</b>
<b>APPENDICES .....</b>	<b>59</b>
Appendix I: Introductory Letter to the Field .....	59
Appendix II: South Sudan Map .....	60
Appendix III: Focus group discussion for continuing students in Juba University.....	61
Appendix IV: Focus Group Discussion for graduates and student of Juba University.....	63
Appendix V: Interview Guide for the employed workers in archaeology in Juba County.....	65
Appendix VI: Focus Group Discussion guides for the Unemployed graduates.....	67
Appendix VII: Interview Guide for the Dean of College of Arts in Juba University.....	69
Appendix VIII: Interview Guide for the lecture in university of Juba.....	71
Appendix IX: Interview Guide for offices in MoCYS, in the MoHER and W&T in Juba County. ....	73
Appendix X: Observations guides .....	75
Appendix XI: Documentary analysis check list .....	76

## **Abbreviation/Acronyms**

ASLC	Academic Skills and Learning Centre
AT	Archaeology Training
CPA	Comprehensive Paces Agreement
DV	Depending Variable
DV	Dependent Variable
EV	Extraneous Variables
ECDVT	European Center for Development in Vocational Training
FGD	Focus Group Discussion
ILO	Internatinal Labour Organsation
IV	Independent Variable
MoCYS	Ministry of Culture, Youth and Sports
MoHERST	Ministry of Higher Education Research Science and Technology
MoLPSHRD	Ministry of Labour, Public Service and Human Resource Development
MoW&T	Ministry of Wildlife and Tourism
MVP	Master in Vocational Pedagogy
NGO	Non- Governmental Organizations
RSS	Republic of South Sudan
SAQA	South Africa of Quality Graduate
SADC	Southern African Development Community
USAID	United States Agency for International Development
VET	Vocational Education and Training
VP	Vocational Pedagogy

## List of Figures

Figure 1.1: A model showing the relationship between training graduates in archaeology and employment requirements .....	9
Figure 4. 1: Learners doing practical learning for the first time.....	33

## List of Tables

Table 3.1: Sample Size Determination .....	26
--	----

## **Abstract**

The purpose of the study was to find out why graduates of archaeology are failing to meet the labour market requirements in South Sudan. It was guided by three objectives; to ascertain the pedagogical approaches used in the training of archaeology, determine whether the archaeological skills acquired from training are relevant to the labour market, and suggest ways of improving on the training of archaeology. The researcher used the qualitative approach following a descriptive design. The sample size was 43 respondents. Data were analysed descriptively under each specific objective. The findings indicated that archaeology training is conducted theoretically, the content of archaeology training does not equip trainees with skills for the world of work, and there is need to align the training curriculum to the requirements in the world of work. From the findings, the researcher concluded that archaeology training was theory-oriented, archaeological skills learners acquire in institutions do not meet the labor market requirements and therefore not enabling trainees to acquire the skills required in the world of work. The study recommended a learner-centred approach in archaeology training, a practical curriculum and increased funding for archaeology training. There is also need to create awareness of the value of archaeology in Juba University.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

In this chapter, the researcher presents a personal background, the background to the study, and statement of the problem. The chapter also includes the purpose of the study, specific objectives, and research questions. The scope of the study, significance, justification and definition of operating terms are also considered in chapter one as well.

#### **1.2 Background to the Study**

##### **1.2.1 Personal background**

The researcher is one of the members of cohort three of the Master's programme in vocational pedagogy (MVP). The researcher is a graduate of archaeology from the University of Juba in South Sudan who graduated in 2008, but through her experience as an Archaeologist it is clear that there is an increasing mismatch in the field archaeology arising from both the training institutions and government under the Ministry of Culture, Youth and Sports (MoCYS). Since graduation, the researcher has not had a chance to work in her field of specialization as an archaeologist. Government through the MoCYS has vested limited efforts in ensuring that the graduates get employment. While there are possibilities of jobs in some ministries, like the MoCYS, very few people seem to understand the role played by archaeologists in the country. From experience as a student of Vocational Pedagogy, the researcher learnt the principle of hands-on training, something that was not experienced during training as a student of archaeology. The initial training prior to the Master's Program in Vocational Pedagogy left her with more of theory than practical skills relevant for the

labour market. With the principles of Vocational Pedagogy, the teaching and learning of Archaeology could be improved so as to meet the labour market requirements.

### 1.2.2 Background to the Study

According to Dobson (2006)<sup>1</sup>, the word archaeology was first used by ancient Greeks more than 2,000 years ago. It combines two Greek words, “archaios” which means old and logos that means words. Therefore, the term Archaeology in ancient Greek terms means the study of ancient things. However, Dobson (2006) argues that Archaeology does not only confine itself to the study of remains, but it also endeavours to find out the challenges that those in the past went through. In this study, the word “Archaeology” (2011)<sup>2</sup> is used to mean a discipline which integrates aspects of field training; and as such shares some traits with disciplines of the labour market. Therefore, Archaeology Training takes on a similar vocational education system as training in the Vocational Education and Training (VET) system of education. The mode of training in VET is hands-on and uses a field training approach which provides individuals with knowledge and skills for direct employment. This is in line with Mjelde (2006:52), who asserts that, VET is concerned with educating the whole person by providing life-skills including values in education and preparation for the world of work and employment.

Today, Archaeology as a discipline has made great advances. This pertains not only to collecting and recording historical findings but also interpreting the past on the basis of those findings<sup>3</sup>. It also contributes to rewriting history in the absence of written records (2011)<sup>4</sup>. Most people feel strongly about the need to protect the past because the knowledge of the past helps us to find out where we came from, where we are, and charting out and where we

---

<sup>1</sup><http://www.digonsite.com/index.html> Dobson (2006) the one of series that explores America’s secret history as seen through the Archaeological record accessed on 18<sup>th</sup>/Aug/2012

<sup>2</sup><http://www.buzzle.com/articles/archaeology> on why Archaeology is Important on 2000- 2011 accessed on 13<sup>th</sup> 10/2012

<sup>3</sup><http://www.buzzle.com/articles/archaeology> on why Archaeology is Important on 2000- 2011 accessed on 13<sup>th</sup> 10/2012

<sup>4</sup><http://www.buzzle.com/articles/archaeology> on why Archaeology is Important on 2000- 2011 accessed on 13<sup>th</sup> 10/2012

want to go. Archaeology helps us to learn about the History of Culture, farming, Language, Literature, Art, and war among others. It is also important because it helps us to learn how humans have interacted with the environment over time. The more we know about the past human activities, the more they understand what effects they have had on the environment and how we can help preserve the world and its resources for many thousands of years to come.

However, the position of Archaeology in the Republic of South Sudan (RSS) according to a recent survey on Archaeology carried out in Sudan supported by Osman and Edwards David (2000-2005) discovered that some areas of northern Nubia have until recently remained relatively unexplored. Similarly Mahas(2010)<sup>5</sup> study also reveals that there was very little archaeological work that had been carried out in South Sudan to date. This implies that there is knowledge about the South Sudanese past history. This is not surprising given the limited interest in African archaeology during the colonial era(Jok2010)<sup>6</sup>. In Sudan, almost all archaeological research was dominated by Egyptological traditions, whose interests remained focused on areas close or linked to Egypt. In the context of the Republic of South Sudan RSS, a survey on archaeological and historical knowledge of the Middle and Upper Nile (Jok 2010)revealed that archaeological and historical knowledge was uneven and in many areas remained almost entirely unexplored with the three greater regions which are greater Equatorial, greater Bhar-El-Gazal and greater Upper Nile remaining entirely uncovered in terms of archaeological studies.

In order to explore archaeology in the country South Sudan, the government through the Ministry of Higher Education, Research Sciences and Technology (MoHERST) set up

---

<sup>5</sup>[http://www.spicey.demon.co.uk/Nubianpage/Southern\\_Sudan1.html](http://www.spicey.demon.co.uk/Nubianpage/Southern_Sudan1.html) The Mahas survey project in archaeology Sudan document paper in Museum Sudan accessed on 18<sup>th</sup> August /2012

<sup>6</sup>Dr. JokMadutJok, Undersecretary, Ministry of Culture, Youths and Sport in the republic of South Sudan in an interview with British Institute in Eastern Africa on "[Building southern Sudan through promotion of our history and culture](#)"

some institutions to promote archeology. As a result a Department of Archaeology was established in 2005 at Juba University with an ongoing training and research component. MoCYS on the other hand also endeavors to promote culture and sports in the country. However, institutions tasked with promoting past cultures and history have so far made little effort to promote the aspect of Archaeological Training for the labour market. This has contributed to the low interest in Archaeology that is even more justified by the widespread unemployment among archaeology graduates. As of now many Archaeologists, including myself are working in areas which are not in line with the professional training received.

The unemployment aspect could further be attributed to the quality of skills acquired from the training institutions. Thus, the training does not give the desired skills to enable archaeologists attain employment. This conforms to Mjelde( 2009)'s<sup>7</sup> view that “there exist gaps between skills and knowledge required in work places on one hand and what is provided in the training institutions on the other hand. Employers are interested in the relevance of the skills graduates bring to the workplace(Kraak and Press, cited in Griesel and Parker 2009:9).This means that, there is need to emphasize the need for actual behavioral development to provide graduates with actual skills required in a specific occupation.

This study therefore, set out to investigate the factors responsible for the Archeology graduates' continued lack of jobs despite the fact that Archaeology is very relevant in our day-to-day lives.

### **1.2.3 The Theoretical Background**

The study is grounded in the theory of constructivism, propounded by Dewey (1959) and Benaim (1995). Constructivists believe that learners learn best when they are actively

---

<sup>7</sup>Mjelde (2009), cited in Hand book program for Masters in Vocational Pedagogy NOMA, New Challenges in Social Organization of Knowledge in Vocational Education.

engaged in the learning process. The student is viewed as one who acts on objects and an event within his or her environment and in the process gains understanding and derives meaning from those objects and events. The constructivist learning theory supports the idea that the use of the interactive approach in teaching has an effect on the learners' critical thinking skills depending on certain factors. Bruner (1973) emphasized the importance of understanding the structure of the subject being studied, the need for active learning as the basis for true understanding, and the value of reasoning in learning.

### **1.3 Statement of the Problem**

The word "Archaeology" according to Barbara (1996:3), refers to the "invisible remains" that help to focus attention on community history. Barbara (1996) is of the view that people are drawn to and are interested in archaeological excavations in progress that promise discovery and demonstrate how archaeologists learn about the past. Ohio Historical Society (2006)<sup>8</sup>, holds that in Africa, Archaeology is the means through which we are able to extend our knowledge of human history beyond the limits of written records. Archaeology gives us access to the entire range of human experience, spanning several million years of human existence. Despite the highlighted importance in our daily life, the studies of archaeology appear to be accorded less significance in the Republic of South Sudan. Although the world puts archaeology at the forefront for discovering human history as cited by Barbara (1996), the

(RSS) appears to have low interest towards archaeology as evidenced through training institutions and government. In the RSS graduates of archaeology continue to have no jobs after graduation. This may imply that the training seems not to be linked to the labour market. This is because many archaeologists are working in areas which are not in line with their

---

<sup>8</sup><http://ohio-archaeology.blogspot.com> the Current archaeological activities, updates and discussion from the Ohio Historical Society (2006) accessed on May /2012.

professional training. However it is not clear why this is the case. This study therefore investigated the reasons why archaeology graduates continue to have no jobs in Republic of South Sudan using Juba University as a case study despite the known importance of Archaeology worldwide.

#### **1.4 Purpose of the Study**

The purpose of this study was to find out why archaeology graduates fail to access the labour market in Republic of South Sudan.

#### **1.5 Objectives**

To achieve the purpose of this study, three research objectives were set. These were:

- A. To ascertain the pedagogical approaches used in archaeology training in Juba University.
- B. To determine whether the archaeological skills acquired from training are relevant to the labour market requirements in Juba County in Republic of South Sudan.
- C. To suggest ways of improving archaeology training to enable the graduates to access the labour market.

##### **1.5.1 Research questions**

Three research questions were derived from the objectives of this study and these were:

- A. What are the pedagogical approaches used in archaeology training in Juba University?
- B. How relevant are the skills acquired by archaeology graduates for the labour market requirements in Juba County?
- C. How can archaeology training be improved in order to enable the graduates to access the labour market in Juba County?

## **1.6 Significance of this study**

The major purpose of this study was to make teaching of archeology relevance to the job market requirements in the Republic of South Sudan. Since archaeology is concerned with the life of entire society, the following beneficiaries will benefit from this study in the following ways.

- A. The study is useful in promoting awareness in educational institutions and the government of the Republic of South Sudan in particular concerning the importance of archaeology.
- B. Through this study the training institutions in the Republic of South Sudan will be able to revise the initial objective of teaching Archaeology to meet the labour market requirements.
- C. The study findings act as a reference document for further study and research in archaeology by pointing out recommendations that are relevant for improving archaeology in Republic of South Sudan.

## **1.7 Scope to the study**

The scope of the study discussed consists of the geographical scope, content scope and time scope.

### **1.7.1 Geographical Scope**

This study was conducted in Juba County in the Central Equatorial State of the Republic of South Sudan. Specifically, it was conducted at Juba University in the Department of Archaeology in the College of Arts and Humanities as the central focus. For

The purpose of triangulation the MoCYS, MoHERST and Ministry of Wildlife and Tourism MoW&T were selected in this study.

Juba University was selected because it is the only institution that has an ongoing training in Archaeology in the country. While the MoCYS and Culture, heritage were viewed as important in this study because they are the principal bodies that take care of archaeology planning and expansion as well as handling graduates from the field of archaeology. The MoCYS is the institution tasked with the promotion of culture and sports in the Republic of South Sudan therefore it considered vital for undertaking this research.

### **1.7.2 Content scope**

The study covered archaeology Training and job market requirements in Republic of South Sudan using the case of Juba University. This was done by examining the pedagogical approaches used in Archaeology Training in Juba University to establish whether archaeological skills acquired from training are relevant to the labour market requirements in Juba County. This was done with the view that it will also be used to suggest ways of improving Archaeology Training to enable the graduates from Juba University access the labour market.

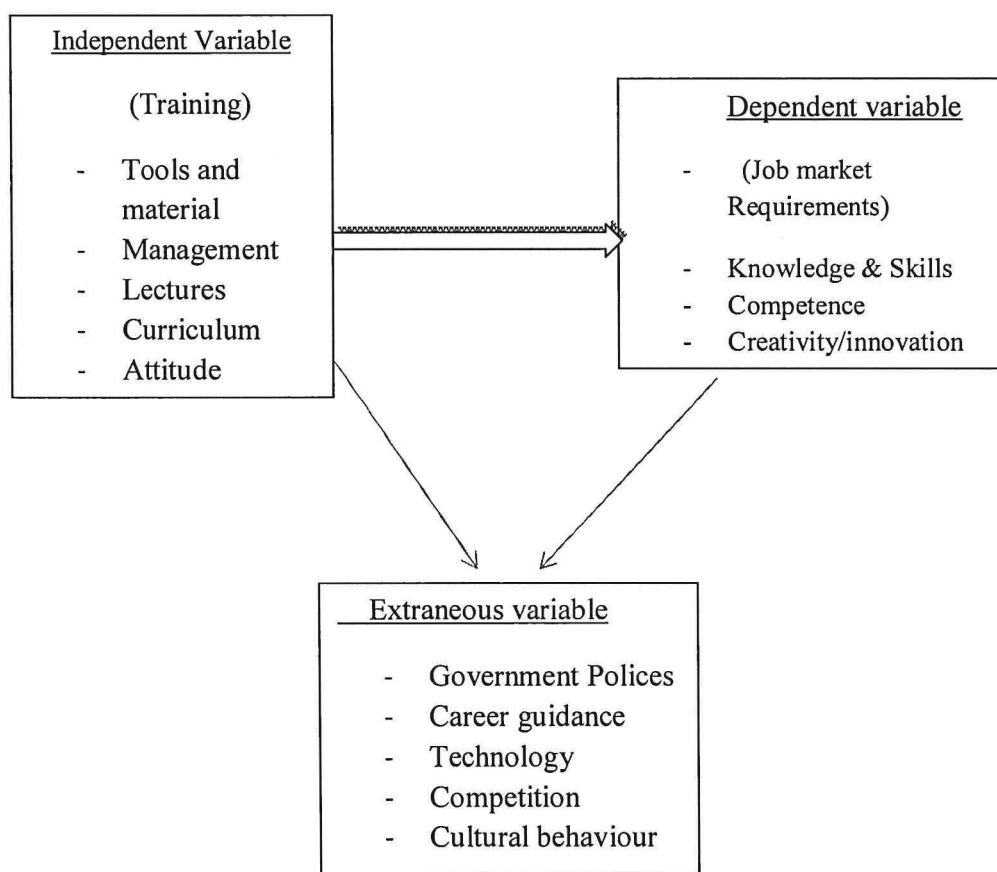
### **1.7.3 Time scope**

This study was conducted using the third year archaeology students and graduates who offered archaeology from 2005 to 2013 in Juba University in Republic of South Sudan. The researcher's choice of 2005 to 2013 was because prior to 2005 most of the documents were destroyed during the war between the government of Sudan and the Sudan People Liberation Army (SPLA). It was in 2005 that the MoCYS and other Ministries were instituted. Therefore it was only from 2005 that some national documents were developed to

promote culture and Archaeology planning in the country. It was during this time scope that the researcher could get the documents with information in relation to the problem under investigation.

### 1.8 Conceptual framework

A conceptual framework is a standard model of research that enables others to see the relationships between variables and concepts in the study. Amin cited in Odiya (2009: 109) noted that the conceptual framework or the variables of the study show how the variables are inter-connected. The conceptual framework employed in this research is illustrated in Fig 1.1 below.



**Figure 1-1: A model showing the relationship between training graduates in archaeology and employment requirements**

The above model in Figure 1.1 is a description of the relationship between the parameters of the assumed variables<sup>9</sup> in the study. The Dependent Variable (DV) which is the job market requirement was expressed in form of knowledge skills and competence creativity and innovation ability. The independent variables include training curricula (content, modules, and environment); organization (timetabling and venue for teaching); delivery mode (theory, practice and management). The Intervening (IV) or Extraneous Variables, (EV) were expressed in form of government policy on education and training, career guidance, competition and cultural behaviors in Republic of south Sudan. Men are preferred to women in most cases due to the nature of the tasks involved. This has also been promoted by culture which passes on the gender roles.

The model suggests that, the skilled, competent, creative archaeologist depends on the availability of tools and materials, practical curriculum, lecturers, good school management and student attitude. In addition the framework suggests that there are other variables extraneous variables (EV) that may indirectly influence the skills expected out of the school system. For example changing technology determines the tools and materials that should be used in training institutions. The government policy determines the management in the training institutions. Therefore, a good learning system for training archaeology should consist of all the above if it is to provide the required skills that match with the requirements of the world of work.

---

<sup>9</sup> The pre-supposed concepts of a phenomenon; these usually take on different or varying values at different times, hence the term variable.

## 1.9 Definition of key Terms

**Archaeology:** Thesis study of human history and pre-history. It is the study<sup>10</sup> of the

way of life and explanation of the world around us and learning from

challenges of the past on human history and culture that has

contributed greatly to our understanding of both the ancient and the

Recent past. It enables us understand not only where and when people

Lived on the earth, but also why and how they have lived.

**Training:** The Process of providing guidance, mentoring, instruction and counseling

to learners in order to pass on knowledge and skills for work.

**Unemployment:** The state of being without a job. That is though one is able to work

one cannot get work as a result of lack of relevant training or knowledge,

skills and negative attitudes towards the job.

**Job Market:** This refers to a dynamic interplay between different trades, occupations,

professions and businesses and the mobility of labour. The job market can grow or shrink depending on the labour demand and supply within the overall economy, specific industries, for specific education levels or specific job functions.

---

<sup>10</sup><http://ohio-archaeology.blogspot.com> the Current archaeological activities, updates and discussion from the staff of the Ohio Historical Society (2006) accessed on May 2012.

**Vocational pedagogy:** This means a learner centred approach where by hands on

training into the field of knowledge is orientated towards trades, occupations and professions.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter examines the literature that is related to the research problem. The literature is reviewed basing on the research objectives. The views of several scholars from diverse sources who have worked on issues related to archaeology training are incorporated in this study. Besides the above, the experience of the researcher is widely used and contrasted with the scholarly views.

#### 2.2 Pedagogical approaches used in archaeology training

Biggs cited in Kulabako (2010: 29) asserted that the task of good pedagogical design is one of ensuring that there is absolutely no inconsistency between the curriculum and teaching methods used and the assessment procedures we adopt. Teaching and learning processes are intended to achieve learning outcomes. Therefore the pedagogical approach should be employed to achieve the intended learning outcome. This view is in line with Lockyear (2013: 6), who asserted that lectures are supposed to introduce learners to the topics and provide the necessary theoretical background as well as practical skills and techniques. The researcher believes that the skill acquired need to link to the labour market requirements.

According to Wood (2008 :20) lectures or theory are given in the classroom while practicals are given in the field or laboratory. Theory provides a general idea that opens up the mind of the learners. In addition ibid (2008) adds that, in archaeology, historical or theoretical structured approaches present chronological narratives portraying an individual era. Wood (2008 :20) and ibid (2008) assertively said that in order for the learner to acquire the desired skills, the pedagogy need to connect theory and practices. Therefore, the theory

and practicals should be taught through a proper vocational pedagogy that combines theory with practice. This is in recognition of the important role this type of education system plays in equipping individuals with relevant skills and knowledge.

Wood and ibid view conforms with Mjelde, (2006: 52) view that vocational education in schools is marked by three related components that are: the practical (work techniques), vocational theory and general knowledge. Lockyear (2013:6) suggested that the pedagogical approach should include practical work. To him practical work allows students to see the methods in practice and get hands-on experience. Downum (1946 cited in Michael, 2004:89-99) argued that practical dimensions enable students to deal with the real-world concerns and offers the potential to build bridges beyond academy. Similarly, the researcher experience from (MVP) method of teaching were included the mind, heart and hand in learning process. Michael (2004) noted that an experiential approach in archaeological training creates a natural affinity between service-learning and archaeology. The researcher's view is that practical or experiential learning enables the learner to remember what they learn. Therefore experiential and practical learning are powerful learning strategies as stated by the Chinese proverb that:

If you tell me, I will listen.

If you show me, I will see.

But if you let me experience, I will learn<sup>11</sup>

This is in line with Dewey (1915) cited in Mjelde (2006: 55-128), who claimed that the real scientific theory is located within the practicals and functions as the impetus for expansion and provides a direction towards new possibilities.

Posnasky, (1971: 330) cited by Lockyear et al (2013: 7) suggested a field trip as another way for training an archeologist. This is because to them a field trip enables students

---

<sup>11</sup>Paper presentation by Dr. Okello Benson: on contradiction and complexity in education system. A presentation in one of the models to students of masters of vocational pedagogy, Kyambogo University, (2011).

to see the real problems and get exposure to fieldwork in their own country. In line with Lockyear and Posnansky, et al (2003: 2) are of the view that a field trip enables students to develop complex processes. To him these processes include observation techniques where learners will be able to plan their work and identify structures, select appropriate information; carry out documentation and moderate the field results. Archaeological field work is therefore a rather long chain of complex procedures and assessment work that need field work. Therefore, the researcher's experience as an archaeologist it is clear that field training provides practical skills and enables learners to see how elements introduced in lectures work in a real life situation. The researcher learnt much through field trips as an archaeology student in Juba University.

### **2.3 Archaeology skills Training and the Labour Market Requirement**

It has long been the case that higher education and work-place share a common misunderstanding about the role of each other. Employers sometimes voice concern over the quality of graduates exiting from universities while higher education feels that those employers are not fully appreciative of what qualities and skills the graduates do possess, (Parker: 2009 cited in Ben and Griesel:2009).

Similarly the South Africa Qualification Authority (SAQA<sup>12</sup>, 2007) graduate quality policy document asserts that in higher education, the quality of graduates produced by the public higher education institutions is low; as perceived from the point of view of the employers. It is therefore not surprising that most graduates remain unemployed and therefore they cannot create employment for themselves due to absence of skills. The researcher is of the view that, this mismatch seems to be due to lack of labour market survey before actual training has taken place. It appears that training institutions do carry out training

---

<sup>12</sup>Africa Qualification Authority in South Africa Quality Policy by Hanlie Griesel and Ben Parker 2009.

in general and in archeology in particular without surveying the prevailing market conditions for graduates.

Several commentators have noted that the low staffing levels and resource constraints in Australian University Archaeology Departments limit their ability to offer a large range of courses, (Sean, et al, 2005:8). In response to changes in the discipline, Beck and Balme cited in Sean et al., (2005) noted that although universities “have changed their courses to include units in Heritage, Public Archaeology and so on, the current degree structure has no room to provide the kinds of specific training that the profession expects”. Sean et’, ( 2005) identified several skill gaps in archaeology training at undergraduate level. According to them these kinds of specialist skill gaps might require new appointments in Archaeology Department where staff expertise does not exist or investment in teaching facilities for example computer laboratories for Geographic Information System GIS. Like ibid (2005), the researcher thinks that it is lack of intended skills provision combined with lack of lectures’ skill and support learning materials that is responsible for the mismatch between training opportunity in archaeology in the University and the labour market requirements.

According to Victoria and Anthony (2008:5)<sup>13</sup>, numbers of professional archaeology employers have expressed dissatisfaction with recent archaeology graduates who, in their judgement, possess inadequate level of professional field skills ibid (2008). They lay the blame for this lack of skills on Higher Education Institutions that are expected to equip archaeology graduates with the skills required for employment by professional archaeology contractors. Specifically, employers have remarked that, as the content of archaeology Degree courses is so diverse, graduates can leave University without the specific level of skills required for employment in the profession.

---

<sup>13</sup>Victoria & Anthony carried out study of the Archaeology Graduate of the Millennium: (2008) A Survey of the Career Histories of Graduate in United Kingdom

Aitchison and Edwards cited in Victoria & Anthony (2008: 7) employers have stated that current graduates have considerably less practical field experience and unrealistic career aspirations. To the researcher, this view can be reflected back in the conceptual framework where all the necessary independent variables such as content, curriculum tools and material are not focused to achieve the desired dependent variable.

In developed countries, the state of employment for archaeology graduates is promising. For example, according to Victoria and Anthony (2008) there are employment opportunities for students of archaeology in local government, museums, national agencies and charities as well as private consultancies and commercial archaeology contractors, It is therefore important to find out whether these institutions exist in South Sudan and if so why have the Archaeology graduates remained unemployed.

However, Victoria and Anthony (2008), United Kingdom documented a steady increase in the number of archaeologists employed in the same sector. They attributed this remarkable difference to the increase in developments in the planning systems that have made an assessment of the impact of development proposals upon the archaeology record and material concern within the planning processes. This has led directly to a considerable increase in the number of archaeology investigations that happen in the United Kingdom, most of which are now undertaken by commercial archaeological contractors. Considering the problem under investigation, there is a marked difference between archaeology employment in the Republic of South Sudan and that of United Kingdom. While the rate of unemployment is high in the Republic of South Sudan, United Kingdom continues to employ their graduates. In the context of the Republic of South Sudan, the researcher believe that the high unemployment rate among the archaeology graduates in South Sudan as stated in the

background could be due to absence of planning for the archaeology sector in a young country like South Sudan.

It is important to align the skills of graduates produced by higher education institutions to the labour market (Kraak and Press: 2008). To them, the success of an economy depends on the close link between the labour force it produces and the ability of the market to absorb them. The view of Kraak and Press calls for a greater responsibility on the side of training institutions to link their training with the skills demanded in societies.

Jackson and Sinclair (2008:8) revealed that the highlight of employment problem is the difference between the number of those studying archaeology and the number of those employed in archaeology. Even those employed in south Sudan still need capacity building from the side of employers in order to cope up with the tasks in the work places (MoLPSHD)<sup>14</sup>. This raises many questions in the entire training process. This is in line with Okello (2011)<sup>15</sup> who pointed out that nations are faced with the challenge of improving the capacity of their workforce to respond to their own national development needs and demands. *ibid* (2011) like (MoLPSHD) emphasizes that training should be geared towards improving the capacity of the work force produced by training institutions.

Wellington (1995) cited Mjelde (2006: 45) who points out that during vocational training, the theory should be related to more dependable activity to provide more information and understanding for the learners' requirements in the world of work. This concurs with Okello's (2011) assertion that theory should be taught alongside requirements of the labour market. Okello (2011) and Wellington (1995) both support the view of Dewey (1999) on reality learning. Dewey (1999) remarked that:

---

<sup>14</sup><http://www.goss-online.org/magnoliaPublic/en/news.html> 2013 reported by William Jufur about the Ministry of Labour, Public Service and Human Resource Development

<sup>15</sup> Paper presentation by Dr. Okello Benson on: Vocational pedagogy in the African context. A presentation in one of the models to students of masters of vocational pedagogy, Kyambogo University, (2011).

Educators need to confirm or translate theory of knowledge that contest the mind and world thought action...what is learned is what is practiced that is testing thought by action if thought was to pass over into useful knowledge...using functional pedagogy and testing it by experiment (Dewey & Westbrook1 1999: 2; Mayhew & Edwards,1966: 464).

The above view indicates that what is learned in classroom should be closure to learners' experience or what they are likely to encounter in life beyond the classroom. In other wards learning need to be translated into practice and connected to everyday life phenomenon.

A study in (London 2004)<sup>16</sup> assets that that there are high levels of unemployment that is usually typical of a struggling economy, where labour supply is outstripping demand from employers. When an economy has high unemployment, it is not using its economic resources in the best possible way.

#### **2.4 Improving Archaeology training for graduates to meet the Labour Market Requirements**

The archaeological profession must confront two problems in the new millennium (Thomas, 1999:1). One is the marginal employment and institutionalized poverty of a growing number of its members. Thomas's view seems to indicate that training need to be linked to employment. On the other hand the statement indicates that when archaeology graduate are employed then poverty may be reduced. Basing on the above view therefore the researcher review literature that gives views on how archaeology training can be improve to meet the labour market requirement. The following views as indicated in the literature point out ways of improving archaeology training to meet the labour market requirements.

---

<sup>16</sup><http://www.politics.co.uk/reference/unemployment> about politics in UK study in London 2004 accessed on 02th/11/2012

According to Olivier (1996),<sup>17</sup> there is a need to continue supporting efforts in promoting the awareness of the need for archeology and its relevance to the labour market. Nilsson (2011)<sup>18</sup> seems to share Olivier's view when he talks about a holistic learning and proper communication. The awareness will prompt the responsible institutions like MoCYS and Juba University to procure tools and materials for practical learning in archaeology. This will improve on the training skills in archaeology.

Grauwe (2008:2) asserts that the characteristics of educational programmes that have broken poverty barriers by linking education to the world of work show that the requirement of the curriculum content goes beyond 'theoretical knowledge' or 'specific technical skills'. It includes 'transversal' skills such as 'reasoning' and 'relating' as well. However, *ibid* (2008) stresses that these "skills are more useful to youngsters in today's volatile labour market." However, the current research stresses the fact that skills and knowledge for employment have to be imparted in the process of learning at work. This involves doing the tasks, which means a relationship with teachers who were called 'educators or coaches' who give individual attention to each student or learner.

Besides that, flexible methods should also be used in archaeological training which deviates from the formal or traditional school to pedagogical hands on. In summary for an effective human resource development to occur, first there need of a national development plan. Secondly, understanding of the role played by archaeologists. Thirdly, human capital development institutions should design a curriculum that takes care of the future changes. Rachel, (2003:7) and Kraak and Press (2008: 3) noted that, addressing such issues requires an

---

<sup>17</sup><http://www.archaeologyuk.org/training/survey.html> Training in Professional Archaeology: a preliminary review Gill Chitty, Hawkshead Archaeology & Conservation Commissioned by English Heritage on behalf of the Archaeology Training Forum April 1999 Hawkshead Archaeology & Conservation Hawkshead Home Farm Highfield Lane Bolton Le Sands Carnforth .accessed on 11/1<sup>st</sup> 2012

<sup>18</sup>Knowledge about vocational learning presentation by dr. prfLennart Nilsson for Master student in Vocational Pedagogy

employment policy that also addresses the equity problem. For example, a curriculum reform policy addressed skill needs; human resource policy addressed the capacity gap.

Since values and skills are taped from the training institutions, higher education institutions need to do their job to produce competent and skilled archaeologists. Therefore, training institutions need to design a practical curriculum for the learners' day-to-day working life. Besides that, since the graduate will end up being employed by local government, national museums, national agencies and charities as well as private consultancies and commercial archaeological contractors, the employing institution should not only blame the training institutions but they should also take part in providing further training to archaeology graduates.

Sean et al., (2005:8) was of the view that, the mismatch between the skills acquired by graduates from school and that of the work place is due to little investment in teaching facilities and computer laboratories for Geographic Information System (GIS). The researcher feels that in the absence of the tools, one cannot claim to have been trained and be ready for work. It is my opinion that the best way of training archaeologists, is to train them with the actual tools that they will eventually use in their working life. On the other hand Okello, (2011) suggested that the absence of modern tools and laboratories is responsible for the persistent theoretical education system.

## **2.5 Summary of the literature review**

The literature outlined a number of pedagogical approaches to teaching and learning Archaeology. It emphasized the use of field work learning in particular and linking theory to practice in learning Archaeology. The literature also explains the usefulness of linking Archaeology training to the labour market demands. It calls for imparting into the learners skills that are applicable and demanded in the labour market. This will help the young

graduates of Archaeology to easily fit in the world of work. Lastly, the literature provides some credible inputs for improving training in Archaeology to meet the demands of the labour market.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

In this part, the researcher presents the methodology that has been used in the study. This includes the study design, which outlines the research process, plan and the methods for data collection and analysis. The area in which the research is carried out, target population, sample size, and sampling techniques are clearly defined. Data collection methods and the procedures of how the data will be obtained are also defined in this section. The types of data collection instruments and the reasons as to why they are chosen are also explained.

#### 3.2 Study design

Kumar cited in Odiya, ( 2009: 135), considers a research design to be the plan for conducting research or set of things to be done in order for the planned research to be conducted. He adds that the research design is a plan or strategy for investigation, or the arrangement of conditions for analysis of data. This study used a descriptive case study design following a qualitative research approach and some quantitative elements for analysis of Archaeology graduates. The qualitative approach promotes greater understanding of not just the way things are, but also why they are (Amin 2005: 42). The researcher chose the descriptive design because this provides an in-depth understanding of the situation in Archaeology in South Sudan. This design was preferred because it would produce a detailed description of the training in Archaeology and its associated unemployment problems for the South Sudanese archaeology graduates vis-à-vis the labour market requirements in Republic of South Sudan.

### **3.3 Study Population**

The study population refers to a group of people from whom information on the problem under investigation was obtained. Joan<sup>19</sup> suggested that the study population refers to the entire group of individuals or objects that researchers are interested in while generalizing conclusions. The target population usually has varying characteristics and it is also known as the theoretical population. The target population for this study included part time lecturers from the Archaeology Department of Juba University and administrators from MoCYS, MoHERST, MoW&T, students who included the employed and non-employed archaeology graduates. Part time University lecturers were chosen because of their long term experiences in training students and research in Archaeology.

Government officials from MoCYS, MoHERST and the MoW&T were selectees because of their experience in the overall planning and policy formulation. The students were selected to find out if the training they received has enabled them to have the labour market requirements in the country. The employed archaeologists were also examined to find out whether they are currently positioned in their rightful professions. Non-employed Archaeology graduates were chosen because they could provide the reasons why they do not fit in the Archaeology labour market.

### **3.4 Sampling Technique**

Purposive, random and snowball techniques were used for sampling. The purposive sampling technique enabled a researcher to select respondents on the basis of being knowledgeable about the problem under investigation or because the only ones in their respective categories (Cohen and Manion cited in Odiya; 2009: 161). This method was

---

<sup>19</sup><http://explorable.com/research-population.html> by Joan Joseph in Castillo Research Population, Retrieved (2009). Accessed on 07<sup>th</sup> Nov 2012

preferred because it would provide knowledgeable respondents on the subject being investigated. Therefore, administrators and government officials from MoCYS, MoHERST, MoPSHRD and MoW&T were selected purposively.

In addition to the use of purposive sampling, a random sampling technique was used. The random sampling technique was used because it gives all units of the target population an equal chance of being selected (Sarantakos1998:141). The researcher used random sampling to select respondents without bias during the selection where each member independent of the other was used for selecting continuing students. Coleman, cited in Survey (1996), was of the view that, the snowball sampling is a method typically used with unknown or rare populations. Members of such populations have not all been previously identified and are more difficult to locate or contact than known populations. Technical employees and non-employees were the target population. Hence, technical part of the research was being used for identity where two or few of the individuals were used to identify more of their colleagues.

### **3.5 Sampling size**

The study utilized a total of 43 from the different categories of the target population. From Juba University the sample respondents included 15 students and 3lecturers who were part timers from the Department of Archaeology. Of these, 9 were employed while 10 were un-employed archaeology graduates. Among the government officials, those sampled included 3 officers from the MoCYS and 01 from the MoHERST. In the latter category all those sampled were heading archaeology departments in the various institutions. Lastly those sampled also included one officer from MoW&T. Table 3.1 shows how the sample size of the respondents was distributed across the different categories and how they were chosen.

**Table 3.1: Sample Size Determination**

S/N	Category of respondents	Sample size	Institution	Selection Method
1	Dean College of Arts and Humanities	1	Juba University	Purposive
2	Students	15		Random sampling
3	Director in Archives	1	Ministry of Youths, Culture and Sports	Purposive
4	Officer for Planning and Budgeting	1		
5	Officer in the department of training in Hotel management and Tourism	1	Ministry of Wildlife and Tourism	Purposive
6	Employed archaeology graduates	9	3 in government and -6 in local government	Snowball
7	Non- Employed archaeology graduates	10		Snowball
<b>Total</b>		<b>43</b>		

### 3.6 Data collection methods and instrument

In this study, the researcher used the interview, observation, documentary analysis and focus group discussions as the data collection methods. With these four methods in place, the researcher hoped to sufficiently address the study objectives. The information obtained by the four methods was used for triangulation purposes. Below is the detailed description of each method and the objective each addressed.

#### 3.6.1 Interview

The study employed unstructured interviews. Patton cited in Zhang and Wildemuth, (2006:1), argued, that this method relies entirely on the spontaneous generation of questions in the natural flow of an interaction. Similarly, Sarantakos, (1998:247) holds the view that;

unstructured interviews serve as a natural extension of participant observation, because they so often occur as part of an ongoing interview. The researcher chose this method because it would allow generation of further questions during the interview process. This method was used to gather information on objective one, two and three. The target respondents were the lecturers who were part timers from the University of Juba, officials from MoCYS employed graduates and those from the MoW&T. Therefore, the interview was done with the help of an interview guide with open ended questions, recording sheets and a camera, which all served as the research instruments.

### **3.6.2 Focus group discussions**

According to Lea-Jeanne, (2010: 35)<sup>20</sup> the focus group discussion (FGD) is used to elicit information about opinions from a certain group of participants. According to Amin, (2005:188) feeling, expression, opinions, experiences and ideas obtained from focus group discussion are valued. To Amin, the respondents express themselves more openly and data collected is usually true. Because of the valued information that was being obtained from focus group discussions the researcher selected this method as appropriate for this study. The method was intended to answer objectives one and two. The key participants for this method were the students and non- employed graduates who were selected using the snowball method.

### **3.6.3 Observation**

A study conducted by the United States Agency for International Development (1996:1)<sup>21</sup>, observation is a process whereby an event, institution, facility, or process can be studied in its

---

<sup>20</sup>www. Research net.com Design Research methods lecture notes , presented by Lea-Jeanne Sachot on 2010, accessed on 10<sup>th</sup>9 /2012

<sup>21</sup>Performance Monitoring and Evaluation tip USAID Center for Development Information and Evaluation using direct observation techniques, 1996

natural setting, thereby providing a richer understanding of the subject. Kumar cited in Odiya, (2009:168), holds a similar view that observation is as purposeful, systematic and a selective way of watching and listening to an event as it takes place without influencing it. Hence, during data collection direct observation was used to contrast respondents' views with the real situation. In this study things that were observed included the behavior of students, tools and materials used for training and training environment. Specifically this method was used to provide answers to objectives one and two.

#### **3.6.4 Documentary Analysis**

Academic skills and learning center (ASLC;2009), document analysis is a key skill in historical interpretation. ASLC also provides an analysis of the motivation, intent and purpose of a document within a particular historical context. This method was therefore selected because it would give insights on the historical development of archaeology in South Sudan. It was further selected because the researcher was interested in studying the national plan on archaeology which could only be obtained through documentary analysis. This method was used to address objective two. This method was adopted right from chapter one and was used throughout the entire dissertation.

#### **3.7 Data Collection Procedures**

The purpose, date and time for research were clearly stated in the letter that was obtained from Kyambogo University that was presented to the relevant authorities in south Sudan. The researcher introduced the research by making the first visit to the research location to get familiar and establish rapport with the respondents at the data collection sites. The respondent's consents were sought before using a notebook, recorder and a camera to capture responses. The researcher personally delivered this letter and when permission was granted, arrangements for the identification of the respondents in those institutions followed.

The researcher made appointments with the target respondents four days before the actual date of the interview.

On the day for data collection the researcher first requested for the list of registered students in the department of archaeology. From the departmental list, a new list of students based on gender was extracted and arranged alphabetically and then from each list, every first two even numbers on the list were taken. The first two even numbers were taken from the top, middle and bottom of the lists. There were only three lecturers in the department and they were all taken purposively. The unemployed and the employed graduates were selected using the snowball method. Interviews were conducted by the participants on the actual date of the interview. In the case of the government officials and lectures, interviews were conducted in their offices, while those of the students, were conducted in their classroom.

### **3.8 Data Processing and Analysis**

The collected data from research was processed and analyzed using the qualitative approach following the objectives of the study this entailed use of Microsoft word for data to be processed by editing the data and breaking down the information through the researcher sorting and recording information received from the respondents. Coding of different data categories or groups and rearranging the tabulated data to discover similarities and differences of the data was being done. The qualitative data analysis was done too and the data gathered was managed or analyzed using themes and sub- themes to obtain the different points of view for the respondents. Though the theme is sometimes used to describe an integrating, relational idea from the data, more often it is used to describe elements identified from texts and this is typical of this approach.

### **3.9 Limitations of the study**

The study was affected by language barrier in view of the fact that the respondents of this study provided their views mainly in Arabic. The researcher therefore required ample time to translate the text from one language to another.

The study also suffered from time limitation because the target population was mainly composed of the employed and government officials who had busy schedules which forced the researcher to re-schedule arrangements with them from time to time. To overcome this problem, appointments were re-scheduled and the researcher had to ensure that all the respondents were attended to.

### **3.10 Ethical consideration**

These are the ethical issues encountered during the data collection process (Creswell, 2007:141). The qualitative researcher faces many ethical issues that surface during data collection and dissemination of qualitative reports. The researcher to secure the target population informed them in advance of the overall purpose of the study and assured them that the study was for academic purposes. The researcher also kept a relationship with the target centers, relevant authorities and the respondents for the success of data collection during field work.

### **3.11 Data quality control**

#### **3.11.1 Validity and Reliability Instrument**

Validity refers to the ability of the instruments to measure what it is developed to measure (Odiya, 2009: 198). In line with Odiya (2009:198) cited by Mbaaga (1990:122), validity of instrument is the degree of success to which it measures what it was constructed to

measure. However, Mbaaga (1990:122) further gives more insights into validity where by the validity of instrument does not only mean that the instrument measures what it was constructed to measure but must measure it accurately.

Mbaaga's view of validity is concerned more with the study's success at measuring what the researcher set out to measure. To minimize this problem, the data collection instrument was being pretested before administering it to the target group. According to Amin (2005: 293), reliability is the degree of the instrument's consistency; which also refers to the degree to which the instrument measures whatever it is measuring. A reliable instrument gives the same value even if it is used a number of times to measure the same value provided the variable does not change. Reliability of the study instruments was done by pre-testing, seeking expert advice from professionals and consulting mentors.

### **3.11.2 Validity and reliability of data collected**

This was done by doing the following:

- ❖ Comparing the answers to the same question from different respondents.
- ❖ Comparing different literature.
- ❖ Ensuring that hand written information is recorded.
- ❖ Asking questions to be answered.
- ❖ Relying on reliable personal in gathering information on the study.
- ❖ In cases where the data was found not to be valid and reliable, going back for more data collection was the option.

## **CHAPTER FOUR**

### **DATA PRESENTATION, DISCUSSION AND INTERPRETATION**

#### **4.1 Introduction**

This chapter breakdowns and translates information gathered from respondents who participated in data collection in the study on Archaeology Training and the Job Market requirements in Juba University. This data is presented in terms of objectives and is categorized as presentation, analysis and interpretation of results. The findings of various respondents are presented also following the research objectives. The objectives of the study included ascertaining the pedagogical approaches used in archaeology training in Juba University, determining whether the archaeological skills acquired from training are relevant to the labour market requirements and suggesting ways of improving archaeology training to enable the graduates to access the labour market in Juba County in South Sudan. A descriptive case study design was used that followed a qualitative research approach and some quantitative elements for data analysis for archaeology graduates.

#### **4.2 Pedagogical Approaches used in Archaeology Training**

Findings from the face to face interviews and FGD's with all the respondents in respect to pedagogical approaches revealed that the approaches used were only theoretical and not practical. This implied that the teaching and learning process in archaeology in Juba University is majorly theoretical. Employers also noted that the graduates they employed had diminutive archeology skills and therefore they were forced to train them on job.

Learners pointed out that, though archaeological studies were concerned mainly with field work (practicals) they were mainly attending lessons most of the time in the classroom.

Although the lecturers said that field visits were one of the practical learning strategies required in teaching and learning in archaeology, majority of the learners felt that they had not been exposed to more fieldwork and therefore they did not have the skills transferred from training during their degree.

Through observation findings revealed that students were actively involved in the practical activities. However, they quickly replied that they were doing practical's for the very first time as shown in Figure 4.2.



**Figure 4. 1: Learners doing practical learning for the first time**

Source: Photo taken by researcher on 2013/ 03/06

In view of the findings, it appears that theoretical teaching was much more preferred at the expense of practical. This is not in recognition of the important role the latter type of education system plays in equipping individuals with relevant skills and knowledge.

Through a face to face interview with the Dean of the College of Arts and Humanity, it was highlighted that majority of the lecturers in the Archeology Department requested for assistance from Khartoum. However, the help students expected did not last for the full

length of a semester because, lecturers from Khartoum always taught for a very short period and went back since they worked on part time basis. Additionally, the students hardly had practical lessons and even left the university without seeing, touching or using any tools or materials. Consequently the part time lectures could not pass on practical skills in archaeology.

### **4.3 Archaeology skills Training and the labour Market Requirement**

Through an interview with an employed archeology graduate, it was pointed out that majority of the graduates were not employed in the field of archaeology. When asked why it was easy for them to get jobs in other fields, the employed graduate had this to say:

....the major problem is that there are no jobs for archeology professionals in South Sudan. In 2005, there were job training opportunities in some ministries and Non-governmental organizations. With our qualification, we applied for those jobs and we were taken. However, we have challenges in handling the jobs because these were not our professions, (interviews with one of the employed students, April, 2013)

Observations and face to face interview with the Director of Ministry of Youth Culture and Sports (MoCYS)<sup>22</sup> revealed that out of 32 students 9 worked in the archeological field, 3 of which who were attached to the government institutions did not study the archaeology field. The rest of the students who studied archeology were working with the local government, Non-governmental organizations (NGOs) and private companies. This implied that the archaeology course units in South Sudan were not relevant to the nature of country. This is because the curriculum in use is obsolete and not for Republic of South Sudan while the content is not rich in terms of relating theory to practice and could not equip the students with the skills needed in acquiring a job and yet there was no practical learning for archaeology in Juba University. The skill gaps in the archaeology profession at the

---

<sup>22</sup>MoCYS is expected to be the biggest employer of archeology graduate in the Southern Sudan

University of Juba required new specialist appointments in the department and investment in teaching facilities. The archeology profession was also male dominated since; out of the 43 respondents 29 were male while only 14 were female. The likely reason for the profession being dominated by males could be partly due its manual nature.

Findings of the study also showed that majority of the teachers, students and employers expressed that the archeological content was obsolete to meet the job practices. They criticized the theoretical nature of the training for Archaeology students in Juba University. The respondents further argued that the outdated content created a missing link between training and the labour market though there was a steady increase in the number of Archaeologists but without employment.

The interview with the Director from MoYCS disclosed that training was not relevant to the needs of the society. This was justified by the director making the following statement:

Employment opportunities for students of archaeology are available but, there is no work due to lack of museums and investing solution. We do not have good development plan and planning system either. Systematic surveys of the labour market for Archaeologists conducted by the Institute for Archaeologists; documented a steady increase in the number of Archaeologists without employment (interview with Director from MoYCS March, 2013)

In view of the findings, the university trained graduates without prior consultation whether the products are urgently needed in workplaces or not.

Findings in relation to an interview with employed graduates, disclosed that majority of the graduates were not employed in the field of archaeology. When asked why it was relatively easy for them to get jobs in other fields other than archaeology, he had this to say:

.....there are no jobs for archeologists in the same profession in South Sudan. There were job training opportunities after 2005 just after the Comprehensive Peace Agreement (CPA) in some ministries and Non-

governmental organizations (NGO's). With our qualification, we applied for those jobs and we were taken. However, we had some problem in handling the job because these were not our professions, (interviews with one of the officials in MoCYS, March, 2013).

The respondents' views indicate that Archaeology as a profession is either not relevant for or not even demanded at all in South Sudan at the moment. "A further implication was that the department of archaeology trains students without consultation with the employers to find out if the skills were needed or not." As a result a negative attitude was created among the graduates because their skills were not needed in the archeology profession and therefore they were forced to seek employment in other sectors.

Through observation and interviews it was also noted that other training institutions other than Juba University have not conducted a labour market survey in Republic of South Sudan. An official from MoCYS had this to say:

...employment opportunities for students of archaeology are there but no work. We do not have a good development plan and national survey in need of archaeology in Republic of South Sudan'.

The view of the MoCYS seems to indicate that there is a prospective future for Archaeology students although there it is no employment for them right now. Therefore the findings confirm the statement made in the back ground that archaeology graduates do not get employment after their graduation.

#### **4.4 Improving Archaeology skill Training and Labour Market Requirements**

Findings from respondents in relation to responses on ways to improve archeological skills revealed that, it is training that can contribute to the shaping of people's history in Republic of South Sudan and the world over. In line with the previous proclamation, one of the respondents from the MoW&T had this to say:

“...We need to create awareness about archaeology and its contribution to tourism in Republic of south Sudan. Tourism and archaeology are identical twins and we must understand how they complement one another”.

Further interviews with the graduates also showed that there was need to strongly protect the past because knowledge of the past enabled the people of South Sudan to be acquainted with where they came from, where they were heading to, and where they wanted to go.

Through Focus Group Discussions (FGD's) with the trainees and the part time university lecturers, it was pointed out that provision of practical learning materials such as a computer laboratory installed with a Geographical Information System (GIS) and C14(Carbon Fourteen) could be useful for the graduates to foster and strengthen the surveying and mapping competencies.

Further face to face interviews with the archaeology trainees and university lecturers revealed that there was need to reform the training strategies used and the curriculum so as to enhance practical learning activities. In line with the predisposing statement one of the lecturers from the university had this to say:

“...we need to adopt good pedagogical approaches which ensure that there is proper imparting of practical skills to our trainees. This can be achieved through proper redesigning of the current curriculum to include practical teaching, appropriate teaching methods, assessment practices and an improved learning environment”.

The previously mentioned statement as pointed out by the lecturer is critical for any intended learning outcomes. This is because every strategy of institutional training needs to be assessed to find out whether it has the desired skill or not.

The researcher interacted with another lecturer who commented on the labour market survey:

.....to achieve complete consistency, there is need to survey the requirements of the labor market. We need to start with carefully defining intended learning outcomes, then choose learning and teaching activities that facilitate learning, then design assessment tasks which will genuinely test whether the outcomes have been achieved....” (interview with Lectures in the department of Archaeology in Juba University, April, 2013)

In view of the lecturers’ suggestions, both the training institutions and employers need to conduct a survey to find out whether the training is needed or not. This implies that archaeology training in Juba University is being done without obtaining a wider view on whether it is needed and the potential employers.

Through observation, it was also noted that Juba University needed to trains well as recruit permanent lecturers in the department for archaeology. Findings from the Dean of College of Arts and Humanities, trainees and graduates also revealed that the department depended on part time lecturers. As a result the lecturers were few who even devoted very little time to teaching.

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter comprises of the summary of the research and the discussion in which the information gathered from the respondents is compared with the existing literature and to some extent the researcher's opinion is given. This section also presents a conclusion, recommendations, limitations and the contributions of the study. In addition, areas of further research are also part of this section. The summary is presented with the purpose of the study, process for data collection and data analysis, and major findings of the study respectively. The discussion of the study is presented in line with the research objectives. The conclusion, recommendations and areas of further study are also presented in this chapter.

#### **5.2 Summary of the Study**

Archaeology training and job market requirements are critical issues today that have become an essential constituent of the practicability concern for employers and employees in the University of Juba, in Republic of South Sudan. The studies of Archaeology appear to be viewed as of less significance hence affecting the performance of trainees, graduates and employers in several organizations. The purpose of the study was to find out why Archaeology graduates seem to be failing to access the labour market in Republic of South Sudan. The specific objectives of the study included ascertaining the pedagogical approaches used in Archaeology training in Juba University, determining whether the archaeological skills acquired from training are relevant to the labour market requirements and suggesting ways of improving on Archaeology training to enable the Archaeology graduates access the labour market in Juba County South Sudan.

A descriptive case study design that employed a qualitative research approach and document analysis of data from archaeology graduates was used. The students, employed and non-employed Archaeology graduates, university lecturers, government officials from MoCYS, MoHERST and the MoW&T were considered for the study. Purposive and snowballing sampling techniques were also employed to obtain data from the different categories of informants.

The findings of the study revealed that training approaches used in the Archeology Department at Juba University were mainly theoretical than practical. Employers in Republic Of South Sudan were of the view that the graduates they employed had diminutive archeology skills and therefore, they were forced to train them on job.

In relation to archaeology skills training and the labour market requirements it was pointed out that majority of the graduates were not employed in the field of archaeology. However, though some employees did not also study the profession they were working as Archaeologists. Findings of the study also showed that majority of the teachers, students and employers expressed that the archeological content was obsolete to meet the job practices which created a missing link between the training and labour market.

Findings about improving archaeology skill training and labour market requirements revealed that archeological Training could contribute to shaping people's history in South Sudan. There was a need to strongly protect the past because knowledge of the past could enable the people of Republic of South Sudan to be acquainted with where they came from, where they were heading to, and where they wanted to go. The provision of practical learning materials was a pre-requisite for proper Archaeology Training. The urgent need to reform the Training strategies used in the curriculum so as to enhance practical learning activities was

strongly emphasised. The necessity to survey the requirements of the labor market as well as recruiting permanent lecturers in the Department of Archaeology was also highlighted.

### **5.3 Discussion of the findings of the study**

#### **5.3.1 Pedagogical approaches used in archaeology training**

The teaching and learning process in archaeology in Juba University is mainly theoretical. This affects the labour market requirements because graduates leave the university with diminutive archeology skills and therefore they are forced to train them on job. This finding is in line with the researcher's personal experiences found in VET institutions visited during the different research expeditions<sup>23</sup> carried out during training as a master's student of vocational pedagogy. Since Juba University scheduled time for vocational theory and general knowledge lessons and not the practicals, as a result the learners could not obtain the skills required of them for working life.

In line with Jackson & Sinclair (2008), fieldwork is not only important to the students in Juba University but also to the graduates. The views about fieldwork are significant to the graduates. This is because graduates acquire skills, knowledge and contacts gained via their fieldwork experiences.

Learners expressed that archaeological studies were concerned mainly with field work but were not attending lessons most of the time in the classroom as pointed out by Wood (2008). Although the lecturers said that field visits were one of the practical learning strategies required in teaching and learning archaeology, majority of the learners felt that,

---

<sup>23</sup>These were field excursions done during our training as masters' students in vocational pedagogy. These were done in both training institutions and workplaces to help us learn by doing as we developed mini project reports that culminated into this particular thesis.

they had not been exposed to more fieldwork and therefore they did not have the skills transfer from training opportunities during their degree.

Fieldwork has important practical implications especially in helping the learners to access the living skills in their daily life. American Journal (1995:79-142)<sup>24</sup> asserts that, fieldwork training enables the learners to practically see and practice in the fields and through interaction with physical objects and the environment, their knowledge and skills are increased. On the same note, *ibid* (1995) maintains that field work is a key for practical skill acquisition as vocational education is designed to lead learners to acquire the practical skills, know-how and understanding the necessary requirements for employment in a particular occupation or trade.

Through scrutiny of the findings, it appears that theoretical teaching was much more preferred at the expense of practice. This is also in line with Wood (2008 :20) who urges that theoretical instruction provides a general idea that opens up the mind of the learners. In addition, Wood (2008) adds that, in archaeology, historical/theoretical structured approaches present chronological narratives portraying an individual era. Nonetheless it should be noted that theory and practice need to be taught, connected and combined. This is in recognition of the important role this type of education system plays in equipping individuals with the relevant skills and knowledge.

Mjelde, (2006: 52) also states that, vocational education in schools is marked by three related components that are: the practical (work techniques), vocational theory and general knowledge. Lockyear (2013:6) suggests a pedagogical approach that includes practical work. On the other hand, Downum (1946) cited in Michael(2004) argued that practical dimensions enable students to deal with the real-world concerns and offers the potential to build bridges

---

<sup>24</sup>[URL:http://www.jstor.org/stable/American Journal of Archaeology\(1995\) 79-142](http://www.jstor.org/stable/American_Journal_of_Archaeology(1995)_79-142) from Archaeological Institute of America.

beyond academy. Similarly, Michael (2004) noted that, an experiential approach in Archaeological training creates a natural affinity between service-learning and archaeology. In view of the predisposing scholars, practical lessons could allow students in Juba University to see the techniques in practice and get hands-on experience.

On one hand through observation, Southern Sudan being a new country<sup>25</sup> does not have archaeological training facilities where they can train students practically such as museums for field work. Consequently students in Juba University are affected in that they don't have the right skills and knowledge required in the world of work. Lack of training sites makes the learners to be taught without field work which results in a skill vacuum for many Archaeology graduates.

On the other hand Juba University needs to acquire infrastructure, tools and materials so as to have a practical approach to teaching and learning archaeology. This compels it to adjust the training methodologies to the theoretical aspect. Mayes (2007:2) describes the task of a good pedagogical design as one that ensures that there are absolutely no inconsistencies between the curriculum taught, the teaching methods used, the learning environment chosen, and the assessment procedures adopted. In line with Mayes' (2007) view, Juba University needs to carefully define the intended learning outcomes by having practical lessons and choosing learning and teaching activities that stand a good chance of allowing the learners to achieve that learning.

---

<sup>25</sup>South Sudan gained independence in (2011) and the archeological college has just been recently transferred from the North to the South after 2011.

### 5.2.2 Archaeology skills Training and the labour Market Requirement

In view of the respondents findings it was established that majority of the graduates were not employed in the field of Archaeology. However, some employees did not study the profession but they were working as archaeologists. The rest of the students who studied Archeology were working with the local government, NGOs and private companies. Beck and Balme cited in Sean et' al., (2005) noted that although universities have changed their courses to include units in Heritage and Public archaeology, the current degree structure has no room to provide the kinds of specific training professions expected”.

Similar to the findings of Sean et' al., (2005) there are several skill and knowledge gaps in archaeology training at undergraduate level. For instance, the archaeology course units in Republic of South Sudan are not relevant to the nature of the country's context, the curriculum in use is obsolete and not for Republic of South Sudan and the content is not rich in terms of relation to the job market requirements, and there is no practical learning for archaeology for Juba University students. The skills gap in the archaeology profession in the University of Juba requires new specialist appointments in the department where staff expertise does not exist or investment in teaching facilities (for example computer laboratories for Geographic Information System (GIS).

Victoria and Anthony (2008)<sup>26</sup> explained that, many archaeological employers especially in developing countries such as South Sudan have expressed dissatisfaction with recent archaeology graduates. This is because in their judgement, they possess an inadequate level of professional field skills of Archaeology.

---

<sup>26</sup>Victoria & Anthony carried out a study of the Archaeology Graduate of the Millennium: A survey of the Career Histories of Graduate in United Kingdom

Victoria and Anthony (2008) further argue that employers have remarked that the content of the archaeology degree courses is so diverse that graduates leave universities without the specific level of skills required for employment in the profession.

In view of Victoria and Anthony's argument employers in Republic of South Sudan have stated that the current graduates have considerably less practical field experience and unrealistic career aspirations. Conversely, students could lay the blame for lack of skills on higher education institutions that they hold responsible for the training of graduates to the level of skills required for employment with professional archaeological contractors as pointed out by Aitchison and Edwards (2003).

In response to the archeological profession being a male trade, gender predetermines the choice of training and institutions where the training is done. The centers to be supported, including the professional profile of experts and further programs for instructors Francis and Keith (2010), are also determined by gender. The Government of Republic South Sudan should promote this occupation to young people regardless of gender. This could ensure there is a focus on gender issues in the professional insight and any other activity designed to inform learners about the world of work.

The findings of the study revealed that, the archeological content used for training students is outdated. This creates a missing link between training and the labour market though there was a steady increase in the number of archaeologists without employment. On the other hand, it looks as if there was minimal understanding between demand and supply of the archeology profession in South Sudan because Juba University is training students without consulting with the employers whether they are urgently needed or not. In view of the findings, the university ends up training graduates without prior consultation whether the products are urgently needed in workplaces or not. Also as explained earlier, Republic of

South Sudan as a country is still new and the demand for young and innovative graduates in archaeology is not a lot as the government still needs to be sensitized on its importance.

The view of the MoCYS indicated that there is a prospective future for archaeology students though they are not considered for employment right now. Similarly, Okello (2011) observed that, theoretical curriculums and content are responsible for many unemployed graduates in Uganda as well. Mjelde (2009) shares a similar view with Okello that gaps exist between skills and knowledge required in work places on one hand and what is provided in the training institutions on the other hand.

Given that the study has established that the content given to students does not meet the expected skills for the world of work, it would be imperative to reduce the gap between the skills training and the labour market requirements at this point in time. This is because employer's are interested in the relevance of the skills graduates bring to the workplace (Kraak and Press cited in Griesel: Parker, 2009). Yet the archeology graduates leave university without the specific level of skills required for employment. The views of Mjelde, (2006) Kraak and Press (2006) demand for restructuring the curriculum content to meet the skill needs of the employees. Also Mayes (2007:2) emphasised that, insitutions need to start with carefully defined intended learning outcomes from having practicals, and choose learning and teaching activities that stand a good chance of allowing the learners to achieve that learning.

### **5.3.3 Improving Archaeology skill Training and Labour Market Requirements**

Findings emphasized that archeological training could contribute to shaping people's history in Republic of South Sudan and the world over. Therefore there is need to strongly protect the past because knowledge of the past can enable the people of RepublicSouth Sudan to be acquainted with where they came from, where they were heading to and where they

wanted to go. In line with the findings, Olivier (1996)<sup>27</sup> explains that there is need to continue supporting efforts in promoting Archeology in the form of awareness because of its relevance to training and linkage to the labour market. This implies that internal awareness is equally important so as to create value addition other than waiting for the future while believing that it is not important now. Nilsson (2011)<sup>28</sup> holds a similar view in line with Olivier's argument. He argues that awareness as part of communication contributes to holistic learning. Creating awareness could also change the attitude towards the archaeology profession in south Sudan. In conclusion, there is need for archaeology trainers in South Sudan to currently plan to provide better training in the University of Juba.

The provision of practical learning materials is a pre-condition for proper archaeology training in the university. This is because availability of tools and equipment could also introduce them to tools and equipment in the labour market as supported by Richardson (2008). Richardson further adds that these tools are very specialized for the work archaeologists do. Therefore in order to have a linkage between the training in university and job market requirements, there is need to train the learners using practical archaeology learning materials and tools so that the learners adapt and use immediately in everyday work.

Interviews with the archaeology trainees and university lecturers disclosed that there was need to reform the training strategies used in the curriculum so as to enhance practical learning activities. This is a critical proclamation for any intended learning outcome to be achieved. Every strategy of institutional training needs to be assessed to find out whether it has the desired skills or not. If the skill is found not to be meeting the labour market requirements, then training processes and the materials provided need to be reviewed for

---

<sup>27</sup><http://www.archaeologyuk.org/training/survey.html> Training in Professional Archaeology: a preliminary review Gill Chitty, Hawkshead Archaeology & Conservation Commissioned by English Heritage on behalf of the Archaeology Training Forum April 1999 Hawkshead Archaeology & Conservation Hawkshead Home Farm Highfield Lane Bolton Le Sands Cornforth .accessed on 11/1<sup>st</sup> 2012

<sup>28</sup> Knowledge about vocational learning presentation by Dr. prf, Lennart Nilsson 2011 for Masters students in Vocational Pedagogy 11<sup>TH</sup> 1/2012

consistency. This is in line with Grauwe (2008:2) who asserts that good educational programmes should show characteristics that meet the requirements of the curriculum content that also go beyond ‘theoretical knowledge’ or ‘specific technical skills’. The curriculum should include ‘transversal’ skills such as ‘reasoning’ and ‘relating’ as well (ibid).

The lecturers suggested that both the training institutions and employers needed to conduct a survey to find out whether the training is needed or not. This implies that archaeology training in Juba University is being done without obtaining a wider view of whether it is needed and who are the potential employers of the graduates. (Sean et’ al., 2005) noted that, the lack of assessment of whether the skill competence is acquired to meet the labour market leads to the mismatch between the skills acquired by graduates from school and those at work places. Mjelde (2009) also asserts that in order for the learner to have a relationship between the tasks and knowledge acquired then, a learner- centered approach to teaching and learning should be used and the task itself is the rotation point for learning. The researcher therefore assumes that conducting the market demand for archaeology training would help improve the training.

Findings from the Dean of College of Arts and humanities, trainees and graduates also revealed that the department depended on part time lecturers. As a result the lecturers were few and devoted very little time to teaching. Okello (2011)<sup>29</sup> points out that, nations should face the challenge of improving the capacity of their workforce to respond to their own national development needs and demands. The researcher also believes that training of the lecturers for the department of archaeology should become the department’s priority. This is because training will build the lectures’ competences that will later be able to pass on the skills and knowledge to the students.

---

<sup>29</sup> Paper presentation by Dr. Okello Benson on: Vocational pedagogy in the African context. A presentation in one of the models to students of masters of vocational pedagogy, Kyambogo University (2011)

#### **5.4 Conclusion**

Aggravating factors such as the training approaches used in the Archeology Department of Juba University being theoretical, lecturers in the Archeology Department requesting for assistance from Khartoum Universities, students acquiring miniature Archeology skills if not addressed would lead to graduates not being employed and if employed employers would be forced to train them on job. The employment situation in the Archaeology profession raises concern since majority of the graduates are not employed in the field. Nevertheless, some employees who even did not study the profession are working as archaeologists. In addition, the archeological content is obsolete to meet the job practices hence creating a missing link between training and the labour market.

The respondents strongly believe that, Archaeology could contribute to shaping people's history in Republic of South Sudan. Therefore, there is a need to strongly protect the past because knowledge of the past is essential for the people of Republic of South Sudan. The provision of practical learning materials is a pre-requisite for proper Archaeology Training. The need to reform the training strategies used in the curriculum so as to enhance practical learning activities should strongly be emphasised. Also the need to survey the requirements of the labor market as well as recruiting permanent lecturers in the Department of Archaeology was pointed out.

#### **5.5 Recommendations**

The views presented and discussed in this dissertation are torching truth. However, the Republic of South Sudan being a new country is not out of track yet. The Republic of South Sudan being a new country is expected to have these challenges in its education system. The researcher therefore drew recommendations that are believed to improve archaeology training in order to meet the labour market requirements based on the findings of

this study. The following are some of the recommendations that will improve archaeology training if emphasis is given to them. These are:

Practical learning activities should be emphasized to encourage a learner centered approach which is rooted in constructivist learning should be provided in order to give the learners the opportunity to acquire skills and knowledge required in the world of work.

In order to bridge the relationship between the tasks and learners, a learner- centered approach to teaching and learning should be used. The task itself will be the rotational point for learning.

Teachers need to use constructivists learning theory where learners are conceptualized as participants, contributors and elaborators of knowledge, which is always socially mediated rather than seeing them as passive recipients of knowledge.

The MoCYS in conjunction with the University of Juba need to create awareness to change the mindset and attitudes of trainees and employers towards archaeology in south Sudan.

The University of Juba in collaboration with development partners, parents, teachers and students need to develop a curriculum and training content objectively constructed to provide the required skills in the world of work. In addition the curriculum needs to incorporate not only knowledge of tools and materials for training but also the skills of using them in the world of work.

The government of the Republic of South Sudan should give a hand in providing teaching and learning tools and materials to the University of Juba for improvement of skills.

Teacher Education and training of Archaeology teachers should become a top most priority for the University of Juba so as to provide them with skills to enable them interact effectively and transfer the skills they have to the learners.

The University needs to conduct a labour market survey before they conduct the training. This is because the views collected from the market will determine the content, the curriculum, and graduates that should be used for giving specific skills required in the job market.

The Ministry of Education, Science and Technology should provide more funds from the national budget to the Department of Archaeology in Juba University. A special fund should be earmarked for training lecturers, buying archaeology equipment and materials.

The University of Juba, MoCYS and MoHERST should develop a national archaeology policy to attract funds from both the national government and the donors and development partners. The development policy document should give directives as to how the teaching of archaeology should be conducted in Republic of South Sudan

## **5.6 Areas for Future Study**

Although it is difficult to extract all the necessary topics for this study, the research therefore recommends the following areas for further research:

- ❖ Revise the initial objective of archaeology to meet the recruitment requirements in Republic of South Sudan.
- ❖ Study of the skills that are required in the world of work.
- ❖ Establish an education and archaeology training and employee relationship.

## REFERENCES

- Amin, M. E. (2005). *Social Science Research Conception, Methodology and Analysis*. Kampala: Makerere University.
- Aitchison, K & R Edwards. (2003). *Archaeology Labour Market Intelligence Profiling the Profession*. UK: The Cultural Heritage National Training Organisation.
- Aitchison, K., & Rachel, E. (2008). *Archaeology Labour Market Intelligence Profiling the Profession*. UK: Institute of Field.
- Bapty, I. Y. (1990). *Archaeology after Structuralism: Post-Structuralism and the Practice of Archaeology*. London: Routledge .
- Butler, J. (1999). *Gender Trouble: Feminism and Subversion of Identity*. London: Routledge.
- Barbara, L. J. (1996). *Archaeology and the Importance of Sifting for Answers about our Forgotten Past*. New Jersey: Historic Preservation National Park Service, U.S.
- Creswell, J. W. (2007). *Qualitative Inquiry Research Design: Choosing among five Approaches (Second ed.)*. United States of America: Sage, Thousand Oaks.
- De Grauwe, A. L. (2008). *Does Decentralization Lead to School Improvement? Findings and Lessons from Research in West-Africa*. *Journal of Education for International Development* , 15.
- Dewey, J., & Westbrook, R. B. (1999). *The Quarterly Review of Comparative*

*Education*. Paris: UNESCO: International Bureau of Education,.

J.C.Ssekamwa. (1997). *History of Education in Uganda*. Kampala: Fountain publishers Ltd.

Europe: Office of the European Union. [ ECDVT], E. C. (2009). *Future skill needs for the Green economy*.

Osman, A., & Edwards David, a. S.-C.-A. (2000-2005). *Mahas Survey Archaeological Reports*. England,: Mahas Survey project.

[ASLC], A. S. (2009). *Writing a Document Analysis*. Australia: Australian National University.

Francis, M. P., & Keith, K. W. (2010). *Digital Antiquity Transforming Archaeological Data Into Knowledge*. Arizona State University: <http://digitalantiquity.org>.

Gardnerin, D. C. (2006). *Vocational Education and Training: Issues for aThematic Review* W. Norton Grubb. Berkeley: OCED.

Griesel, H., & Parker, B. (2009). *Graduate Arttributes A baseline study on south African*. South Africa: Ben Parker.

Hjørungdal, Tove, Cornell, P., Gillberg, Å., & Anders. (2003). *Learning Field Archaeology Student Integrating Methods in Tertiary Education*. Sweden: Department of Archaeology, Gothenburg University, Sweden.

Interio, U. D. (1996). *Archaeology and the Importance of Sifting*. New Jersey: National Park . Service, U.S.

- Jackson, V., & Sinclair, A. (2000). *Millennium Archaeology Graduates*. London: The higher Education Academy.
- Kulabako, M. (2010). *Fulfilling Occupational Skills Requirements: The Case of Adult and Community Education Training at Kyambogo Univeristy*. Masters in Vocational Pedagogy, Kyambogo University.
- Lockyear, K. (2013). *Introduction to Archaeological Field Methods and Teaching*. Archaeology. University College London.
- Mantz Yorke. (2006). *Employability in Higher Eudaction*. United Kingdom: The Higher Education Academy.
- Mbaaga, F. K. (1990). *Interoduction to Social Research*. Kampala: Makerere Unviersity.
- Mehren, W. A., & Lehmann, I. J. (1987). *Using Standardized Tests in Education*. New York: Longman.
- Merrick, P. (1971). *Archaeology as a University Discipline*. Ghana: Universty of Ghana.
- Michael, N. S. (2004). *Implementing Community Service Learning through Archaeological Practice*. Michigan Journal of Community Service Learning , 99.
- Mjelde, L. (2006). *The Social Relations of Working and Knowing*. *Studies in Vocational and Continuing Education*, Peter Lang, Bern Vol. 8. Bern: Peter Lang.
- Mjelde, L. (2006). *The Magical Property of Workshp Learning*. (P. lang, Ed.) Bern: International academic publishers.

- Mjelde, L. (2009). *New Challenges in Social Organization of Knowledge in Vocational Education: Unity and Diversity in Vocational Didactics in Relation to the Identity of Specific Trades and Professions*. In Weil, M., L. Koski and L. Mjelde (eds) *Knowing Relations of Working and Knowing. Studies in Vocational and Continuing Education*, Vol. 8. Bern: Peter Lang.
- Odiya, J. N. (2009). *Scholarly Witing Research Proposals and Report in Machamillan Publication Style*. Kampala: Makerere University.
- Russell, S. (1999). *Evaluating Performance Interventions Performance*. American Society for Training & Development.
- Sarantakos, S. S. (1998). *Social Research* (Second ed.). London: Macmillan Press Ltd.
- Sullivan, L. P., & Childs, T. S. (2003). *Curating Archaeological Collections: From the Field to the Repository*. Walnut Creek, California.: Published by the DOI Departmental Consulting Archeologist /NPS Archeology Program, National Park Service, Washington, DC, February 2006.
- Wood, I. E. (2008). *A Phenomenological Approach to Learning Archaeological Theory*. London: University of Exeter.

## Websites

Survey, S. C. (1996). <http://www.fort.usgs.gov/landsatsurvey/SnowballSampling.asp>.

*Retrieved 11 7, 2012, from U.S. Department of the Interior | U.S. Geological Survey.*

<http://explorable.com/research-population>. By Joan Josephin Castillo Research Population. Retrieved (2009).

<http://www.jstor.org/stable>American Journal of Archaeology (1995) 79-142) from URL: Archaeological Institute of America.

Dobson (2006) *dig for Archaeology* <http://www.digonsite.com/index.html> the one of series that explores America's secret history as seen through the Archaeological record accessed on 18<sup>th</sup>/Aug/2012

<http://www.archaeologyuk.org/training/survey.html> Training in Professional Archaeology: a preliminary review Gill Chitty, Hawkshead Archaeology and Conservation Commissioned by English Heritage on behalf of the Archaeology Training Forum April 1999 Hawkshead Archaeology and Conservation Hawkshead Home Farm Highfield Lane Bolton Le Sands Cornforth .

Dr. prf, Lennart Nilsson *Knowledge about vocational learning presentation 2011 for Masters students in Vocational Pedagogy 11<sup>TH</sup> 1/2012*

[http://www.spicey.demon.co.uk/Nubianpage/Southern\\_Sudan1](http://www.spicey.demon.co.uk/Nubianpage/Southern_Sudan1) the Mahas survey project in archaeology Sudan document paper in Museum Sudan accessed on 18<sup>th</sup> August /2012

<http://www.archaeologyuk.org/training/survey.html>. *Training in Professional Archaeology: a preliminary review Gill Chitty, Hawkshead Archaeology & Conservation Commissioned by English Heritage on behalf of the Archaeology Training Forum April 1999 Hawkshead Archaeology & Conservation Hawkshead Home Farm Highfield Lane Bolton Le Sands Cornforth .accessed on 11/1<sup>th</sup> 2012*

The important of archaeology [http://www.buzzle.com/articles/archaeology on why Archaeology is Important on 2000- 2011](http://www.buzzle.com/articles/archaeology_on_why_Archaeology_is_Important_on_2000-2011) accessed on 13<sup>th</sup> 10/2012

Richardson,L. (2008). *Prescot Street*. Retrieved 09 06, 2013, from [www.lparchaeology.com/prescot/learning/what-tools-do-Archaeologist](http://www.lparchaeology.com/prescot/learning/what-tools-do-Archaeologist).

[http://www.spicey.demon.co.uk/Nubianpage/Southern\\_Sudan1.html](http://www.spicey.demon.co.uk/Nubianpage/Southern_Sudan1.html). *The Mahas survey project in Archaeology Sudan document paper in Museum Sudan accessed on 18<sup>th</sup> August /2012*

<http://ohio-archaeology.blogspot.com> *the Current archaeological activities, updates and discussion from the Ohio Historical Society (2006) accessed on May /2012.*

[http://www.buzzle.com/articles/archaeologyon why Archaeology is Important on 2000- 2011](http://www.buzzle.com/articles/archaeologyon_why_Archaeology_is_Important_on_2000-2011) accessed on 13<sup>th</sup> 10/2012

Dr. JokMadutJok(2010) *Undersecretary of the Ministry of Culture, Youths and Sport in the republic of South Sudan in an interview with British Institute in Eastern Africa on artic of "Building southern Sudan through promotion of our history and culture"*

Mayes,T.(2007). *TESEP e-Pedagogy Consultant. United Kingdom* Retrieved by transform website: [www.napier.ac.uk/transform](http://www.napier.ac.uk/transform).

<http://ohio-archaeology.blogspot.com>.the *Current archaeological activities, updates and discussion from the staff of the Ohio Historical Society (2006) accessed on 4/08/2012.*

<http://www.archaeologyuk.org/training/survey.html>. *Training in Professional Archaeology: a preliminary review Gill Chitty, Hawkshead Archaeology & Conservation Commissioned by English Heritage on behalf of the Archaeology Training Forum April 1999 Hawkshead Archaeology & Conservation Hawkshead Home Farm Highfield Lane Bolton Le Sands Cornforth .accessed on 11/1<sup>th</sup> 2012.*

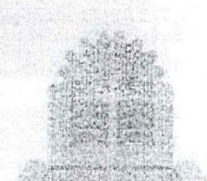
### **Papers presented**

Dr. Okello Benson *Paper presentation Vocational pedagogy in the African context. A presentation in one of the models to students of Masters of Vocational pedagogy, Kyambogo University (2011)*

APPENDICES

Appendix I: Introductory Letter to the Field

KYAMBOGO



UNIVERSITY

P. O. Box 1 Kyambogo, Phone: 041-285001/2 Fax: 041-220\*64, Kampala

www.kyambogo.ac.ug

FACULTY OF VOCATIONAL STUDIES

DEPARTMENT OF ART & INDUSTRIAL DESIGN

Date: 16/01/2013.....

To:

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

RE: LETTER OF INTRODUCTION

This is to introduce Mr/Ms/Mrs. MARLIN PAULLINO LOGGALE  
Registration No. 2011IX/HD/AD/1/MVP.....who is a student of Kyambogo University pursuing  
on a post graduate programme in Vocational Pedagogy.

He/She intends to carry out a research in:  
Archaeology Training and Job Market  
Requirements in South Sudan: A Case of Juba University  
as partial fulfillment of the requirements for the award of the Degree in Masters of Vocational  
Pedagogy.

We therefore kindly request you to grant him/her permission to carry out the research at your  
organization.

Any assistance accorded to him/her shall be highly appreciated.

Thank you.

Yours Faithfully,

Mugisha John  
Ag. Head of Department  
Art and Industrial Design



## Appendix II: South Sudan Map



Source: Google map of South Sudan

### **Appendix III: Focus group discussion for continuing students in Juba University**

Dear Sir/Madam,

I am a master's student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job requirements in archaeology and its relevance to the labour market so as to improve archaeology training that link archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated as confidential and will be used specifically for this study.

Thank you for accepting.

#### **Section: Guidelines in pedagogical approaches used in archaeology training**

##### **Demographic Information**

Participants: 3– 5 persons representing third year students

Sex: Male..... Female..... Age... ..

##### **1. Discussion Pointers in Methods of Teaching/Learning**

- (i) How have you been involved in archaeology training?
- (ii) How has the teaching been conducted?
- (iii) Have you been to fieldwork during your course of study? If yes during which year?
- (iv) What do you think about this method of teaching?

2. Do you think there should be a better way of handling the teaching process in terms of teaching methods? If yes, explain.

- (i) What is your view about training of archaeology?

(ii) With your experience as a student, what do you think are the causes of unemployment of the archaeological graduates in Juba County?

**Section 3** Do you think the course content is relevant to the job requirements in Juba County? If yes explain and if no explain too.

(i) From your experience as a student at a higher institution, what do you think is lacking in terms of content in relation to doing and acquiring a job in Juba County?.....

(ii) If given the opportunity as students what do you think is needed to be offered? .....

(iii) What would you prefer to include or remove in order to make you as a student have good pedagogical approaches and graduates get employed in Juba.....  
.....

**Thank you once again for your time.**

## **Appendix IV: Focus Group Discussion for graduates and student of Juba University**

Dear Sir/Madam,

I am a master's student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

### **Section: Guidelines in pedagogical approaches used in archaeology training**

#### **Demographic Information**

Participants: 3– 5 persons representing third year students

Sex: Male..... Female..... Age.....

#### **1. Discussion Pointers in Methods of Teaching/Learning**

- (i) How have you been involved in archaeology training?
- (ii) How has the teaching been conducted?
- (iii) Have you been to fieldwork during your course of study? If yes during which year?
- (iv) What do you think about this method of teaching?

2. Do you think there should be a better way of handling the teaching process in terms of teaching methods? If yes, explain

(i) What is your view about training of archaeology?

(ii) From your experience as a student, what do you think are the causes of unemployment of the archaeological graduates in Juba County?

**Section 3** Do you think the course content is relevant to the job requirements in Juba County? If yes explain and if no explain too.

(i) From your experience as a student at a higher institution, what do you think is lacking in terms of content in relation to doing and acquiring a job in Juba County?

(ii) If given the opportunity as students what do you think is needed to be offered?

(iii) What would you prefer to include or remove in order to make you as a student have good pedagogical approaches as graduates get employed in Juba.

**Thank you once again for you time.**

**Appendix V: Interview Guide for the employed workers in archaeology in Juba County**

Dear Sir/Madam,

I am a master’s student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

Dear Sir/Madam,

**Section 1: Demographic Information**

Sex: Male ..... Female .....

Age group: 25-35 ..... 36..... 45 above .....

Workplace: Government .....private .....NGO.....Others ....

Level of Education: Degree .....Diploma .....others.....

For how long have you been working? .....

What is your area of specialization?.....

**Section 2: Why are the archaeologists not getting employed easily in Juba County South Sudan?**

- (i) How did you get jobs?
- (ii) Are you working in your profession?
- (iii) How do you see the demands of archaeology in south Sudan?
- (iv) What skills and competences do you have that made it easy for you to get a job in archaeology?
- (v) How do you relate the training received and the labour market requirements?
- (vi) What have you received in training that is relevant to the labour market requirements today?
- (vii) What do you think could be responsible for the unemployment of archaeology graduates of South Sudan?

## **Appendix VI: Focus Group Discussion guides for the Unemployed graduates**

Dear Sir/Madam,

Dear Sir/Madam,

I am a master's student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

### **Section 1:**

#### **Demographic Information**

Sex: Male.....Female .....

Age group: 25-35 ..... 36-45 above .....

Level of Education Degree ..... others .....

Language: English ..... Arabic .....

Area of specialization .....

Year of completion .....

Are you working .....

**Section: 2 Guideline in pedagogical approaches used in archaeology training**

- (i) What do you think causes unemployment in South Sudan and what skills and knowledge are required from archaeology graduates?
- (ii) When did you apply for work and which years have you been at work?
- (iii) Do you think archaeology graduates have knowledge and skills for employment?
- (iv) Which jobs are available that needs people with archaeological training in South Sudan?

**Section: 3 Relevance of archaeology training to the labour market in Juba County.**

- (i) Do you think the skills, knowledge and attitudes you have acquired from Juba university are relevant to the labour market YES/ NO
- (ii) If yes, how has it helped you? And if no, why not?
- (iii) What challenges did you face?
- (iv) If given the opportunity of going for further training, or study another course what would you prefer to learn in order to get employed in Juba County?

## **Appendix VII: Interview Guide for the Dean of College of Arts in Juba University**

Dear Sir/Madam,

I am a master's student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

### **Section 1: Demographic Information**

Sex: Male..... Female .....

Workplace: government .....private ..... NGO .....Others

Education qualifications: Diploma .....Degree.....Masters.....

Duration of the courses and years: 1-9 Months .....1-3 years .....

Number of learners from 2005 to 2012: male.....female.....

Number Graduates from 2005-2012: male.....female.....

### **Section 2Relevance of the Archaeological training to the labour market in Juba County**

(i) What are the aims of archaeology training at Juba University?

- (ii) What courses are offered here?
- (iii) Do you think all the course contents taught here are relevant for doing a job in Juba County to give the graduates the desired skills? If yes/No explain?
- (iv) From your experience as a principal at an archaeology training institutions of Juba, what do you think is lacking in terms of knowledge and skills required in relation to doing a job in Juba County?
- (v) If given the opportunity of reviewing the curriculum content the courses offered, what would you prefer to include or remove in order to make your graduates get employed in Juba County?

**Methods of Teaching/Learning**

- (i) What kind of teaching methods are used by the teaching staff?
- (ii) Do you conduct training? If yes for how long and if no why not and in which years?
- (iii) Can you state the tools and materials used during the trainings?
- (iv) What challenges did you face in this department?
- (v) Do you think there should have been a better way of handling the teaching process in terms of teaching methods? If yes explain how.

**Thank you for your time**

**Appendix VIII: Interview Guide for the lecture in university of Juba**

Dear Sir/Madam,

I am a master’s student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

**Section 1 Demographic Information**

Sex: Male .....female

Lecturer: Government .....private .....NGO.....others .....

Name of subject you are teaching.....

**Section: Pedagogical approaches used in Archaeology training in Juba University.**

- (i) Which methods of teaching are used in archaeology?
- (ii) Which method do you think is easy for the learning?
- (iii) Do you think the content addresses the learning needed?
- (iv) What challenges do you face in applying that method of teaching?

- (v) How is the assessment done in the university and who does the assessment and which skills are assessed?

**Section 3: The relevance of training archaeology and requirements of the labour market in Juba County.**

- 1 Do you think that in South Sudan the archaeology graduates are easily getting jobs in Juba County?

If yes, explain why?

If no, explain why? .....

- 2 As the teacher of archaeology how do you see the archaeological work in south Sudan?
- 3 Do you think the course content you are teaching is relevant for doing a job in Juba County? If yes explain, if no explain too
- 4 What challenges did you face in the teaching of archaeology in South Sudan?
- 5 What do you think are the ways of improving on archaeology training that can enable the graduates to access the labour market?
- 6 What do you think could be the reasons for the south Sudanese archaeology graduates not being employed?

**Thank you once again for you time.**

**Appendix IX: Interview Guide for offices in MoCYS, in the MoHER and W&T in Juba County.**

Dear Sir/Madam,

I am a master's student of Vocational Pedagogy and I am carrying out research concerning archaeology training and job market requirements in Juba University in South Sudan. The data is intended to help me understand the training and job market requirements in archaeology and its relevance to the labour market so as to improve archaeology training that links archaeology to the labour market in South Sudan. I would like to request you to give me some of your time to answer a few questions I have prepared. The information you are going to give will be treated with confidentiality and will be used specifically for this study.

Thank you for accepting.

**Section 1 Demographic Information**

Sex: Male .....Female.....2- Name of Ministry: .....

3. Name of department: .....4. Position of respondent.....

5. Language of operation: English ..... Arabic .....

**Section 2 Causes of unemployed archaeology Graduates in Juba County in South Sudan**

- (i) From your experience, what do you think could be the causes of unemployment for the South Sudanese archaeology graduates in Juba County?
- (ii) Do you have any policies governing the employment of South Sudanese archaeology graduates in the Republic? If yes, what are they? If no, why not?

**Section 3: Relevance of training in archaeological skills to the labour market in Juba County.**

Can you identify the numbers of professional archaeologists who work in South Sudan?

(i) Do you have any archaeological work that you have been developed for?

If yes, who developed it and when?

(ii) Can you identify the numbers employed in each type of work?

(iii) What are the terms and conditions of applying for each job type?

(iv) How can the ministry help those seeking to enter the profession?

(v) Have the archaeologists got jobs in South Sudan in their field of training?

If yes, why and if No, Why?

(vi) What challenges did you face in these institutions?

(vii) If given the opportunity of reviewing the curriculum, what would you prefer to include or remove in the content in order to make archeology graduates get employed in Juba County?

**Thank you for your time once again**

## **Appendix X: Observations guides**

- The arrangements of the learning process
- Evidence of using the teaching aids
- Methodology and teaching used in the teaching and learning process
- Learning participations
- Assessment of the learning
- Whether the learning is holistic (theory practical and general knowledge and how they conduct the practical and theory)
- Workshop learning
- Labour market requirements

## **Appendix XI: Documentary analysis check list**

- Time location (The time give for the practical learning).
- National plant of employment in south Sudan.
- The objective of the archaeology training in theUniversity of Juba.
- Content of the archaeology training is it practical.
- Policy of Archaeology in Republic of South Sudan
- Assessment and evaluation and requirements in the job market.