

**REWARDS AND JOB PERFORMANCE OF SCIENCE TEACHERS IN ADJUMANI  
DISTRICT, UGANDA**

**BY**

**OBULEJO SAVIOUR**

**REG NO: 17/U/14555/GMED/PE**

**A DISSERTATION SUBMITTED TO KYAMBOGO UNIVERSITY GRADUATE  
SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE OF MASTER OF EDUCATION IN POLICY,  
PLANNING AND MANAGEMENT**

**NOVEMBER, 2019**

## DECLARATION

I, **Obulejo Saviour**, declare that this research Dissertation entitled “*Rewards and Job Performance of Science Teachers in Adjumani district, Uganda*” is my original work and has not been submitted for any award in any University or institution of higher learning and that all the work quoted are clearly referenced in this work.

Signature: .....

NAME: OBULEJO SAVIOUR

DATE: .....

## **APPROVAL**

This is to certify that this research Dissertation entitled “*Rewards and job performance of Science Teachers in Adjumani District, Uganda*” carried out by Obulejo Saviour is done under our supervision as University Supervisors and has been submitted for examination with our approval.

### **1. Dr OKELLO BENSON**

**Signature:** .....

**Date:** .....

### **2. Dr. NAMUTEBI EDITH**

**Signature:** .....

**Date:** .....

## **DEDICATION**

This work is dedicated to my family members, especially my daughter Okua Nicole and son Opini Emmanuel, friends and finally my late Sister and brother Ulea Rose Mildred and Igama Anthony respectively.

## **ACKNOWLEDGEMENT**

To God be the glory and adoration for the opportunity and grace given to me to write this Dissertation.

The thought, development and completion of this Dissertation was made possible by the good will, support, tolerance and inspiration of many people. It is in view of this that I acknowledge such contributions.

I am profoundly indebted to Dr. Okello Benson and Dr. Namutebi Edith, my supervisors for their constructive criticisms and suggestions which were very helpful to me.

I would like to thank my advisor and Head of Department Educational Planning and Management, Dr. G. W. Kasule for his continuous supervision of my progress and academic assistance given to me whenever I needed.

I wish to thank several people who assisted in this research and among them are; Dean Faculty of Education Assoc. Professor Ayikoru Joyce Assimwe, Dean, Graduate School Assoc. Professor Muhamud N Wambede, Dr. Owino Phillip, Dr. Grace Lubaale, Assoc. Professor Godfrey Ejuu, Dr. Stephen Ndawula, Dr. Naluwemba Frances, Rev. Fr. Dr. John Bosco Ssettumba, Dr. Elizabeth Opit, Mr. Semanda Enosi and Mr. Okongo Bright.

Lastly, I am also grateful to Mr. Paul Kibirige for the editorial contribution in this report. Many thanks go to the following course mates, Aleru Gloria, Adiga Bernard, Tumusiime Crescent, Wandera Roselyne Ajambo, Balibalila Charles Lugenda, Cadribo Rophine, Birungi John, Namwanje Elizabeth and the course coordinator Mr. Lukenge Samuel for their input.

## TABLE OF CONTENTS

DECLARATION .....	ii
APPROVAL .....	iii
DEDICATION .....	iv
ACKNOWLEDGEMENT .....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	x
LIST OF FIGURES .....	xi
ABBREVIATIONS AND ACRONYMS .....	xii
ABSTRACT.....	xiii
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Introduction.....	1
1.2 Background of the Study .....	1
1.2.1 Historical Background .....	1
1.2.2 Theoretical Perspective.....	2
1.2.3 Conceptual Perspective.....	3
1.2.4 Contextual Perspective.....	4
1.3 Statement of the Problem.....	5
1.4 Purpose of the Study .....	6
1.5 Objectives of the Study.....	6

1.6 Research Questions .....	6
1.7 Research Hypothesis .....	6
1.7.1 Scope of the Study .....	7
1.7.2 Geographical Scope .....	7
1.7.3 Content scope.....	7
1.7.4 Time Scope .....	7
1.8 Significance of the Study .....	7
1.9 Conceptual Framework.....	8
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>10</b>
2.1 Introduction.....	10
2.2 Career Development and science Teachers’ job performance.....	10
2.3 Working Environment and Science teachers job Performance.....	13
2.4 Monetary rewards and Science teachers’ job performance. ....	17
2.5 Summary of identified gaps .....	20
<b>CHAPTER THREE: METHODOLOGY .....</b>	<b>22</b>
3.1 Introduction.....	22
3.2 Research Design.....	22
3.3 Population and Sampling Techniques.....	23
3.3.1 Parent Population.....	23
3.3.3 Sample.....	24

3.4 Data Collection Tools .....	24
3.4.1 Quality control of the instruments .....	25
3.4.2 Validity of instruments .....	25
3.4.3 Reliability.....	26
3.5 Research procedure.....	27
3.6 Data Analysis and Presentation .....	27
3.6.1 Quantitative Data Analysis .....	27
3.6.2 Qualitative Data Analysis .....	28
3.7 Ethical considerations to the study .....	28
3.8 Limitations and delimitation.....	29
<b>CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION ...</b>	<b>30</b>
4.1 Introduction.....	30
4.2 Questionnaire return rate.....	30
4.3 Background characteristics of the respondents.....	31
4.4 Objective one: Effect of career development on Science teacher job performance in secondary schools in Adjumani District. ....	33
4.5 Objective two: To examine the relationship between working environment and the Science teachers' job performance in Secondary Schools in Adjumani district.....	39
4.6 Objective three: Extent to which monetary rewards affect the morale of the Science teachers job performance in secondary schools in Adjumani district.....	41



## **CHAPTER FIVE :SUMMARY, DISCUSSION, CONCLUSIONS AND**

<b>RECOMMENDATIONS</b> .....	47
5.1 Introduction.....	47
5.3 Discussion.....	47
5.3.1 Effect of career development on science teachers’ job performance in secondary schools in Adjumani district .....	47
5.3.2 Relationship between working environment and science teachers job performance in secondary schools in Adjumani district. ....	49
5.3.3 Extent to which monetary rewards affect the morale of the science teachers to perform in secondary schools in Adjumani district. ....	51
5.4 Conclusions.....	52
5.5 Recommendations.....	53
<b>REFERENCES</b> .....	55
<b>APPENDICES</b> .....	63
APPENDIX I: QUESTIONNAIRE FOR THE SCIENCE TEACHERS .....	63
APPENDIX II: KEY INFORMANT INTERVIEW GUIDE .....	69
APPENDIX III: SAMPLE SIZE DETERMINATION TABLE .....	70
APPENDIX IV: INTRODUCTORY LETTER .....	71

## LIST OF TABLES

Table 1: Sample size description .....	24
Table 2: Reliability and Content Validity Index.....	26
Table 4. 1: Summary of the respondents .....	31
Table 4. 2: Distribution of respondents by Sex, Experience and Educational level.....	31
Table 4. 3: Responses on Career Development and Science Teachers performance .....	34
Table 4. 4: Responses on why career development fails to improve Science teachers' job performance in secondary schools in Adjumani district.....	38
Table 4. 5: Working Environment and the science teachers' job performance.....	40
Table 4. 6: Responses on salaries and allowances and Science Teachers performance .....	42

## LIST OF FIGURES

Figure 1: The conceptual framework illustrating the effect of rewards on job performance of science teachers.....	8
---	---

## **ABBREVIATIONS AND ACRONYMS**

CVI	-	Content Validity Index
D.V	-	Dependent Variable
DIS	-	District Inspector of Schools
DSC	-	District service Commission
E.V	-	Extraneous Variables
I.V	-	Independent Variable
MoES	-	Ministry of Education and Sports
PTA	-	Parents, teachers Association
SESEMAT	-	Secondary Science and Mathematics Teachers Program
SPSS	-	Statistical Package for Social Scientists
STEM	-	Science, Technology, Engineering and Mathematics
UNEB	-	Uganda National Examination Board
USA	-	United States of America
TRS	-	Total Reward System

## ABSTRACT

The study investigated rewards and job performance of science teachers in Adjumani district, Uganda. The objectives were, to examine the effect of career development on the science teachers' job performance in secondary schools, to examine the relationship between working environment and the science teachers' job performance in secondary schools, to determine the extent to which monetary rewards affects the morale of science teachers to perform in secondary schools in Adjumani district. The study employed cross-sectional survey design. The target population of 180 respondents out of which a sample size consisting of: 04 Head teachers, 112 science teachers, 01 District School Inspector was used. The study was carried out among Science teachers in 16, secondary schools in Adjumani district. This study adopted purposive and simple random sampling techniques in selecting the sample for the study. The main data collection tools included self-administered questionnaires and interview guide. This helped to gather quantitative and qualitative information and the responses obtained were coded and measured on five-level Likert scale. Quantitative data was analyzed using Pearson product moment correlation to determine the relationship between the variables. While thematic analysis was used for qualitative data, sub themes and themes were developed in line with the study objectives. The study revealed that there was a strong positive statistically significant relationship between: Rewards in terms of good working environment and the science teachers job performance in secondary schools in Adjumani district ( $r=.509$ ,  $p= .012$ ,  $N=86$ ) at 0.05 significant level. Three recommendations were made and these are that: Schools should organize workshops and seminars for their science teachers for career development, Schools should also provide avenues for science teachers upgrading such as paid study leave, Schools should source for funds to pay allowances and bonuses to the Science teachers so as to supplement on the salaries.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

The study focused on the effect of rewards on job performance of science teachers in secondary schools in Adjumani District. This chapter consists of the background of the study, statement of the problem, purpose of the study, objectives of the study, scope of the study, significance of the study, limitations and delimitations of the study.

### **1.2 Background of the Study**

The background is divided into four perspectives; namely; the historical, theoretical, conceptual and contextual perspectives.

#### **1.2.1 Historical Background**

The need to promote Science, Technology, Engineering, and Mathematics (STEM) education arose from United State of America (U.S.A) when the mathematics and science achievement of U.S.A pupils and the rate of Science, Technology, Engineering and Mathematics degree attainment appear inconsistent with a nation considered the world leader in scientific innovation (Kuenzi, 2008). Studies on the relationship between reward and teachers' job performance reported mixed conclusion. For example, a study by Engellandt and Riphahn (2005) in Switzerland found that surprise bonus payments are an effective incentive for employees' effort.

Ahn and Vigdor (2010) concluded that monetary rewards lead teachers to work hard in teaching science using practical pedagogical skills in United States of America. A study by Gunger (2011) in Turkey revealed that financial rewards have positive effects on employee performance. Similarly study by Charity and Timinefere (2011) found that monetary reward has significant

positive effect on employees' performance in Nigeria. While a study by Yamoah (2013) reported a significant relationship between teachers' rewards and job performance in Ghana. Lack of monetary rewards such as salary, rent, allowances and transport allowances negatively affect teachers' work performance in Ethiopia (Negussie, 2014).

Over the past two decades, the Government of Uganda produced several key policy documents highlighting all children's rights to Education. Examples include "The Government Whitepaper on Education (1992), Education Policy and Basic Requirements and Minimum Standards Indicators for Educational Institutions (2015).

The policy on Science Education, which took effect in 2006, made the study of Science subjects, namely; Physics, Chemistry, Biology and Mathematics compulsory for ordinary level secondary school students.

### **1.2.2 Theoretical Perspective**

The study was guided by Vroom's (1964) Valency, Instrumental and Expectancy theory. Vroom's (1964) theory explains why people such as science teachers work and behave in the way they do in terms of effort and direction they take. It also describes what organizations do to encourage people/science teachers to apply their efforts and abilities to achieve desired goals as well as satisfying individual needs (Agwu, 2013).

Vroom's theory indicates that people constantly predict the likely future leading to expectations about the future events. Rewards therefore, according to Vroom is a combination of value of perceived outcome, the believe that if I complete certain actions then I will achieve the outcome, and the belief that I am able to complete the actions. According to Aktar, Sachu, & Ali (2012), Vroom's theory argues that, the strength to act in certain way depends on the strength of the

expectation that the act will be followed by a given outcome on the attractiveness of the outcome to an individual. It is a monetary and non-monetary belief concerning the likelihood that a particular act will be followed by a particular outcome (Vroom, 1964). Thus, a belief that hard work leads to a quick promotion is an expectancy, which an individual can pursue to meet his needs. The theory assumes that science teachers will have the morale to produce only if they expect that productivity will lead to the goal they value. Increased effort will lead to increased performance (Depedri, Tortia & Carpita, 2010). This therefore means that satisfaction from the initial effort must be efficiently great or equitable to make the effort worthwhile and there must be a feedback. This theory was therefore, adopted to guide an assessment of the effects of rewards and job performance of science teachers in Adjumani district secondary schools.

### **1.2.3 Conceptual Perspective**

The key concepts of the study were rewards as being Independent Variables (I.V) and job performance of science teachers as Dependent Variable (D.V). The rewards include both monetary and non-monetary. The monetary rewards include: salary enhancement, bonus, pay for holiday trips, profit sharing, performance pay, pay for medical bills, and non-monetary rewards include promotion, career development, good working environment, recognition, fringe benefits, award of trophies, putting a picture of employee of the month or year, sending flowers, verbal thanking and sending recognition memo or letter of appreciation, giving balance of food items from the store to teachers at the end of the term, offer of fire wood to teachers residing in the staff quarters among others. Whereas the performance of the science teachers at school can be measured by looking at the following: - schemes of work, lesson plans, lesson notes, records of work, meeting attendance, signing in the staff arrival book, conducting practical lessons, regular assessment of the students by giving course works, tests among others. Therefore, to achieve the



desired goals, reward systems should be closely aligned to the organizational strategies (Allen & Helms, 2002).

Performance refers to the result of an activity according to Boddy (2008). Upon individuals' results, there are three main models of performance-based reward programme that are commonly found in education systems. The first model is "merit-pay", which generally involves individual pecuniary awards based on student performance, and classroom observation, (McCollum, 2001). The second model is "knowledge and skill-based" compensation, which generally involves individual pecuniary rewards for acquired qualifications and demonstrated knowledge and skills, which are believed to increase student performance (Odden, 2002).

#### **1.2.4 Contextual Perspective**

The Government of Uganda has continued to effect a 30% payment of Hard to reach allowance to all the teachers who work in designated Hard to reach areas (operation of the Public Service Act, 2008). Besides, the Government introduced science teachers allowance in the secondary schools in Uganda and later on the science scale. All these were the deliberate effort to enhance science teachers' performance in Uganda.

However, despite of all these interventions, the performance of students in science subjects is deteriorating in the country. In Adjumani district, the report from the District Service Commission, (DSC/08/2009), indicates most science teachers kept on relocating to South-Sudan in order to search for jobs with better pay. On the same note, UNEB dissemination report (2010), observes that the test scores of students in science subjects like Physics, Chemistry, Biology, mathematics and Agriculture kept on dropping for the last 10 years in Adjumani. For instance, in the above period the schools under study registered in total 45 distinctions, 675 credits, 897

passes and 1658 failures in the science subjects in general (SESEMAT report 2015). The school administration together with Parents' Teachers Association (PTA) tried to introduce Parents, Teachers Association (PTA) allowance, practical allowance, test marking allowance, but it has not yielded any good results in the schools of Adjumani district.

This study therefore, seeks to establish the extent to which monetary and non-monetary rewards have correspondingly influenced job performance of Science teachers in Adjumani district.

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

Rewards enhance teachers' performance to determine the quality of education in order to attain set goals and objectives of secondary schools.

However, science teachers' performance in schools in Adjumani district is still very low. This poor science teachers' performance has led to undesirable outcomes such as low commitment of teachers, poor lesson preparation and high students' indiscipline (MoES, 2015).

This indicates the linkage between the two variables. (Low payment of salary and allowances, poor working environment, and lack of career development-SESEMAT Moyo Region Inspection Report, 2015). (Low commitment, poor teaching preparations, lack of continuous learner assessment-MoES, 2015).

Teachers rewards' should be effectively and efficiently implemented through enhancement of salaries and allowances, provision of good working environment and career development in order to improve their performance that leads to the attainment of set goals and objectives of secondary education. Hence the need to conduct a study to examine the effect of rewards in terms of career development, working environment and monetary on job performance of science teachers in secondary schools in Adjumani district.

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

The main purpose of the study was to establish the effect of rewards on the job performance of secondary science teachers in Adjumani district.

#### **1.5 Objectives of the Study**

- i) To examine the effect of Career Development on the science teachers job performance in secondary schools in Adjumani district.
- ii) To examine the relationship between Working Environment and the science teachers job performance in secondary schools in Adjumani district.
- iii) To determine the extent to which monetary rewards affects the morale of science teachers to perform in Secondary Schools in Adjumani district.

#### **1.6 Research Questions**

- i) What is the effect of Career Development on the science teachers job performance in secondary schools in Adjumani district?
- ii) What is the relationship between Working Environment and the science teachers' job performance in secondary schools in Adjumani district?
- iii) To what extent does a monetary reward affect the Science teachers job performance in Secondary Schools in Adjumani district?

#### **1.7 Research Hypothesis**

The study was guided by the following hypothesis:

**H1:** There is no statistically significant relationship between Working Environment and the science teachers' job performance in secondary schools in Adjumani district.

### **1.7.1 Scope of the Study**

The scope of the study, covers geographical, content and time scope as well.

### **1.7.2 Geographical Scope**

This study was carried in particular private and Government grant aided secondary schools in Adjumani district with Universal Secondary Education (USE) program. The schools were selected for the study because of the decline in science teachers' job performance as indicated in SESEMAT Moyo Region Report (2015).

### **1.7.3 Content scope**

This study was restricted to monetary and non-monetary rewards and job performance of science teachers in Adjumani District. The monetary rewards include house rent allowance, award for best performing science teacher, transport allowance, among others. While the non-monetary rewards considered include career development in terms of seminars, workshops, in-service training and safe and conducive working environment at work place.

### **1.7.4 Time Scope**

The period between 2013 and 2017 was considered for this study; this being the period during which Adjumani District experienced teachers strikes over salary increment and overall poor performance of students during the national examinations especially in science subjects of Physics, Chemistry, Biology, Mathematics and Agriculture.

## **1.8 Significance of the Study**

The study is of importance to the Scholars in that it adds to the already existing literature on the extent to which rewards influence science teachers' job performance in secondary schools.

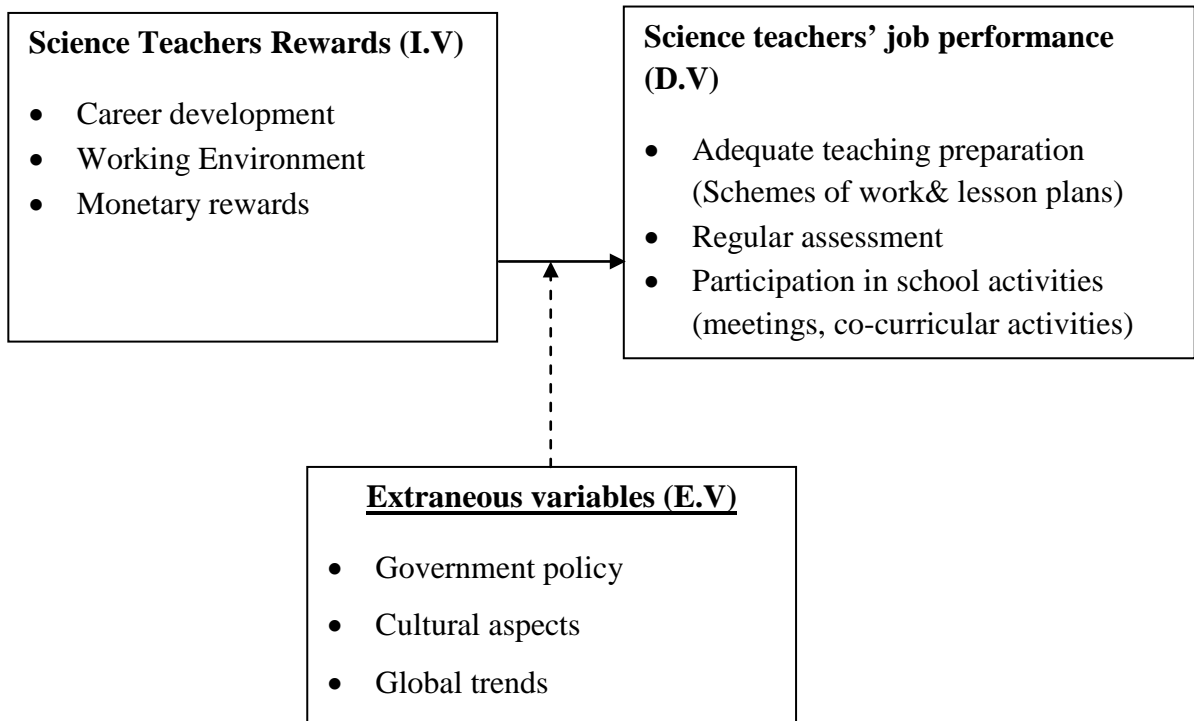
The study is also of help to the policy makers in that it provides information for reference that is vital in reviewing the current policies on salary structure of the teachers in the country.

This study is of vital help to the secondary science teachers since it equips them with strategies on how to better their performance in schools.

Furthermore, the study is of importance to the administrators and managers of secondary schools in that it equips them with knowledge on the current demand of rewards for the science secondary teachers which helps them to improve school performance in the district.

### 1.9 Conceptual Framework

**Figure 1: The conceptual framework illustrating the effect of rewards on job performance of science teachers.**



Source: As modified by the Researcher from Herzberg's two factor theory.

According to this frame, science teachers' rewards as the independent variable directly affect job performance which is the dependent variable. Figure 1 above further describes how Science Teachers' rewards measured by career development at work place, working environment and monetary rewards affects job performance. Science teachers job performance is measured by descriptors such as adequate teaching preparation (schemes of work, lesson plans), students' assessment and participation in school activities. However, each of the constructs under science teachers' rewards directly influences the respective constructs under job performance. The extraneous variables like Government policy such as free secondary education which prevents school management from charging school fees, Cultural aspects which prevent education for girls in other communities and Global trends like introduction of information and communication technologies (ICT) with large enrolments and few computers for learners are in place. However, they were held constant.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews related literature by different authors available on science teachers' rewards and job performance. The information is a combination of extracts, paraphrased statements from textbooks, pamphlets, magazines, websites, publications and other official reports related to rewards for science teachers and their performance. The literature is reviewed according to study objectives spelt out in chapter one.

#### **2.2 Career Development and science Teachers' job performance**

A career is a related series of jobs in ascending order of status and responsibility (Armstrong,2006). It is an organized planning method used to match goals of employee with business need of the organization. It involves the activities undertaken by the individual employees and the organization to satisfy career aspirations and requirements for a job.

Murphy (2007), stated that career development is a lifelong set of activities contributing to the exploration, stabilization, success, and fulfillment of one's career. In this research, career development is related to rewards because career development significantly influences employee's performance. Career development is considered here as training and development, leadership roles, and the reward system, effected to the employee satisfaction which consists of responsibility, recognition, advancement and achievement.

Developing careers for employees offer them new opportunity of learning, as well as to advance as relied on workers in an organization. Employees usually need continued growth, getting new skills in order to advance in all ways of their lives. This learning and advancing in new ways

make employees to be able to select the assignments to handle, and they are also capable of rising to new hardships every day as they achieve their targets, (Gubman,2008).

Agwu (2013) looks at career development as being dispensable for implementing career plans. It consists of activities undertaken by the individual employees and the organization to meet career aspirations and job requirements. Leaders should give equal and fair training, development and higher career opportunities to all employees to sustain a pleasant working relationship among all the employees (Aktar, Sachu, & Ali, 2012).

According to Karl Kepner (2001), Career mapping tools are gaining prominence as a way to communicate and guide employees and their managers by having productive discussions on career advancement opportunities and to facilitate development planning discussions. Element of career growth is an important driver of employee commitment but it is neglected by many employers. Investing in employee's careers is another cost-effective way of increasing employee engagement.

Rizwan (2010), says that career development consists of training development, leadership roles, and the reward system, effected significantly to the employee's performance, consist of quality of work, working creatively, effectiveness of work, and work completion on time. The results of this study showed that, the higher the career development of employees, the higher the work performance is registered.

Salman (2010), brings out clearly that, career development consists of training and development, leadership roles, and the reward system, significantly effected to job employee's satisfaction, and it consists of the work itself, supported working environment, and co-workers. The results of this study indicate that the better the perceived career development of employees, it will increase



employee satisfaction as well. Since there is feeling of satisfaction, it will make employees feel responsible disciplined, and obedient, proud and respectful to the employer.

Okumbe (2001) argues that having employees who are pursuing careers is of advantage to organizations in that individuals are motivated to work hard in order to further their careers, workers loyalties to their occupation is enhanced, employee's competency increases over time, management succession schemes can be drafted easily and career planning can be directly related to the firm's performance appraisal and management by objective systems.

Desler (2003) indicates clearly that the notion of career development and employee productivity when he emphasizes that those human resource management activities that support employee development, promotion from within a career advancement should be revised to enhance employee motivation. Wayne (2006), also notes that promotions help satisfy employee's needs for security, belonging and personal growth. In some countries, certain regions, especially urban areas, produce more teachers than are locally required. This is the case in Mozambique, for instance, where disproportionate number of teachers are trained in Maputo (Mulkeen & Chen,2008:16). In Malawi where the rural-urban gender balance is particularly acute, teachers are trained and deployed in rural schools to address under staffed challenges, while others are transferred from rural to urban schools to unite them with their spouses so as to settle the married couples to improve their performance.

Snelgar et al. (2013) also found out that career management and performance played a major role in the encouragement and attraction of employees. Stahlet et al. (2012) argued that in order for companies to attract and retain talent, they should not only look at the base pay but also ensure that their careers are developed for better performance.

Bennel (2004), recommended that focus should be put on improving levels of; occupational status, job satisfaction, pay and benefits in order to address the material and psychological needs of teachers, and talent management practices should adhere to the total reward approach.

### **2.3 Working Environment and Science teachers job Performance**

A study in U.S by Ingersoll & Smith (2004) found out those strong administrators at work place support increased performance for beginning teachers especially. That study focused on specific programs that administrators can put in place to help support new teachers. For instance, increased collaboration time among teachers can allow for a more distributed leadership structure and provide teachers with the ability to learn teaching skills from each other. Collaboration time allows members of the school community other than the school administrators to take an active role in supporting teachers, while simultaneously reducing teacher stress (Malloy & Allen, 2007).

Statistics from the National Center for Education (1997) in United States acknowledged that; staff recognition, parental support, teacher participation in school decision making (teacher voice), influence over school policy, and control in the classroom were the factors most strongly associated with teacher satisfaction.

In other countries like Malawi, official education data reveal a strong relationship between the availability of housing in an area and the presence of female teachers in the school. Likewise, in Uganda, a recent study on teacher remuneration considers provision of housing to be a key factor in ensuring commitment and good performance among teachers, especially in rural areas. In 2005, 15% of the school facilities grant was allocated to the construction of housing for teachers in Uganda (Mulkeen,2005).

Odden (2002) defines good working environment as one of those non-financial reward that is an important initiator of employee performance. In this context, working environment is considered as physical environment, flexible working hours, and supportive supervision.

Lyons and Ben-Ora (2002) noted in total reward system (TRS) that one of the examples of non-monetary reward is work environment which includes intangible elements such as the organization climate, leadership, performance support, and work and life balance.

Characteristics of physical environment include indoor climate (temperature, lighting), air quality, office space, and work place lay out which affects the performance of employees (Gubman, 2008). He notes that comfort in the office contributes significantly to positive employee performance.

Kressler (2003) noted that flexible hours permit employees the option of choosing daily starting and quitting times, provided that they work a set number of hours per day or week.

According to Murphy (2007), flexible schedules at work place have a positive impact on employee performance. First, they lead to improved morale. Employees who are offered and use flexible work arrangements feel they have better work arrangements than those who work from Monday through Friday with strict one- hour lunch break. Employee's morale is very important because when they feel good about their jobs and their employees, they create good working environment for others and it enables better health for others. It also increases productivity.

Roberts (2008), notes that flexible time working hours can have a positive impact on the performance measures of quality, reliability, quality and quantity of employee work. However, flexible working schedules may not be suitable for some jobs where for instance a work station

must be staffed at all times. It may also create problems for managers in communicating with and instructing employees.

According to Maicibi (2003), increase of working hours, larger class sizes, more subjects, and constantly changing curricula are major challenges of Science teachers in many countries. In Ugandan situation as of now other challenges for science teachers include high class-sizes as a result of introduction of universal secondary education and compulsory science education in the country.

Greenberg (2005), notes that job satisfaction is highest among employees who believe that their supervisors are competent and treat them with respect. More so, job satisfaction is enhanced when employees have free communication with their supervisors.

The principle and school environment are critical effective teacher performance at work place. The principle or the school Administrator is responsible for hiring new teachers and may also create distinct working environments within schools that are highly predictive of teacher satisfaction and commitment (Cole,2002). Various researchers have linked Principal behavior directly and indirectly to job satisfaction (Shann, 1998). He found out that some of the most important determinants for effective performance in teaching are related to workplace conditions.

Another factor affecting teacher performance at work place is building good leadership. Data provided by the South Center for teaching quality showed that schools with effective, strong leadership attracted quality teachers (Berry, 2004). Lack of input on school decisions and inadequate support from the school administration was example that leadership had in poor promotion of teachers' good performance in schools. (Ingersoll, 2001).

Administrators can also promote effective performance of teachers by making an effort to communicate more effectively with teachers. Teachers get more committed to their work when they identify their principal as someone who promotes open lines of communication with his or her staff, delegate authority, and shares important information on regular basis (Bogler, 2001).

Teachers want to be involved not only in decisions within their classrooms but also in school wide decisions. When teachers have little involvement in decision making, they can have a low level of job satisfaction (Bogler,2001). This is especially important for new teachers in a building. Getting new staff members involved in identifying and addressing issues that have an impact on student learning and teacher incentives are important factors in increasing teacher performance (Keplan & Owings, 2002). Teacher involvement with a variety of aspects within the school can help strengthen their desire to continue to be part of the education profession.

The building principal plays an integral part in managing and keeping quality teachers. Teachers who do not receive support from administration are more likely to fail in their duties and look for a different job (Berry & Darling-Hammond,2006).

Health concerns are also major issues at work place that affect the performance of teachers. Teachers may perceive that living in hard to reach areas involve a greater risk of disease (Akyeampong & Stephens, 2002), and less access to healthcare (Towse et al, 2002) which affects the performance of the teachers.

These studies demonstrate that the rural schools have particularly acute problems in promoting teachers' performance. Teachers are more likely to be discouraged with low student achievement, high percentages of minority students, high poverty levels, and greater student discipline problems (Boyd et al.,2005; Feng, 2005; Hanushek et al.,2004; Scafidi et al.,2007).

## **2.4 Monetary rewards and Science teachers' job performance.**

In Ghana, for example over 80% of teachers said they prefer to teach in urban schools because of the believe that there is a better pay in such schools (Akyeampong & Lewin, 2002).

According to Charity and Timinefere (2011), monetary rewards leads to teachers' superior performance. Better allowances and high salary payment for teachers impact positively on their satisfactions that result into effective performance at work place.

Majority of the people considered financial rewards as the best tool to inspire their employees. However, some of the employers consider also special types of non-financial rewards to change the contentment and increases the level of their employees' commitment. Some of these non-financial rewards have their advantages in creating an extremely committed workforce. These merits come as a result of job autonomy, ability to participate in decision making, recognition, job involvement, and the significance of the job.

Whitaker (2009) also found out that employees' initial satisfaction is enhanced with a pay rise or cash bonus, but the effect is short-lived compared to the satisfaction from the non-financial rewards such as condensed working hours, subsidized meals or services, additional holidays and team events. Non-financial rewards were found to improve employee satisfaction, foster a positive culture and encourage loyalty and commitment to the organization (Whitaker,2009).

From a survey of teachers in Sierra Leon, Harding and Mansaray (2006: P9) find out that only "only 10 percent of teacher respondents agreed with the general statement that 'teachers at this school are well paid' compared to 85 percent among urban teachers".

In the Latin American regional study (Vegas & Umansky,2005), it was found that both teacher wage levels and structure generate various incentives and disincentives. Higher absolute wages

and competitive relative wages appear to attract more and better qualified candidates to the teaching profession and may result into better performance of the teachers.

Bennel (2004) noted that monetary rewards include salary, pension schemes, allowances which include night, travel and special allowances among others.

Bala & Bello (2017) emphasize that monetary rewards constitute total remuneration such as base pay, pay contingent on performance, contribution, or skill, pay related to service, health insurance and competency or skill among others.

A study by Salman, Mohammed, Ogunlade, and Ayinla (2012) has found out that majority of Science Teachers have agreed that payment of poor remuneration, in terms of salary and allowances for Science Teachers, affects their performance which as a result contributed greatly to student's mass failure. Thus, what is the effect of salary, allowances, and benefit as monetary reward package on Science teachers' performance in Secondary Schools in Adjumani district?

Artz, (2014) in her study about job satisfaction of workers recommends that salaries of workers should be paid promptly and that promotion of workers should be accompanied by corresponding increase in the salary they earn. She observes that salary was a strong force that kept teachers at their jobs. This study recognizes the fact that salary is vital in causing satisfaction among workers and therefore, likely to influence performance.

Charity & Timinefere (2011) assert that a reward in form of pay has a strong impact on the employee's performance. Bratton (2003), states that pay is one of the most powerful motivating tools.

Yamoah (2013) provides for allowances that employees are entitled to which include travel allowances, consisting of night allowance, lunch allowances, kilometrage distance, settling-in-allowances, training allowance is another category of allowances, extra duty allowances and another form allowance provided to employees is foreign services which consists of climatic clothing, children, education, holiday allowances. Although the literature review has provided an understanding that the allowances affect employee performance, very little is understood about the effect of allowances on employee productivity in public sector.

Uzonna (2013) argues that school-based incentives are a means of providing satisfaction by introduction of clear goals to the whole school, and facilitating student's achievement. He emphasized that teachers are not only satisfied by money, but financial reward must have some influence on career choices for at least some teachers. Some point out that past research suggests money has an influence on teachers' satisfaction and others say money is one motivator among many (Bett, Onyangu & Bantu, 2013). Therefore, it is argued that a performance-based policy which involves a monetary component would attract teaching talent by providing rewards that satisfy a large range of people.

Mulkeen (2005) also reports that some teachers in small rural schools in Uganda commit fewer hours to class room teaching in favor of their private work, possibly as a means of complementing their inadequate salaries. Salaries also have been found to have a significant impact on teachers' decisions to leave the profession. On average, new teachers who earn higher salaries are less likely to leave than new teachers who earn lower salaries. Hanushek et al. (2004), reported that salaries seem to be more important to new teachers' decisions to settle in one school and do their duties.



One reason why teachers stay in education has been identified to be the salary they get. However, there were no studies found that listed it high on the reasons for staying in the profession. Generally, teachers with higher salaries tend to stay longer in teaching careers, and leavers and movers tend to be teachers with lower salaries (Shen, 1997).

The Ministry of Education and Sports (2013) in Uganda analyses teachers' issues in the country and revealed in their report that teachers are entitled to several allowances such as: Hard to reach allowances of 30% of the basic pay per month. Hardship allowances are part of the national wage package.

Complaints about the big teaching load of science teachers have been reported in SESEMAT Moyo Region Inspection Report, (2015). In Uganda, the Ministry of Education raised the teaching load of Secondary teachers to a minimum of 26 periods per week in 2002, however, it was reduced to 18 periods per week when teachers complained to the president. These work load of teachers vary from school to school and it is a big challenge to the Ministry of Education due to shortage of Science teachers. Private Secondary Schools often have strong incentives to expand classes in order to maximize fee income. If, however, the financial payoff to science teachers for teaching extra classes is not increased sufficiently then this can result in low job satisfaction.

## **2.5 Summary of identified gaps**

The effect of rewards on workers' performance on job has been justified by authors who conducted previous studies. From the studies, scholars such as Bala & Bello (2017) have examined the relationship between rewards and teacher performance in both private and public primary and secondary schools. According to Greenberg (2005), conducive working

environment has a positive effect on teacher performance. In his study, Roberts (2005) noted that, flexible time working hours can contribute positively to employee satisfaction, in turn boosting performance. Richardson (2009) concludes that teachers are not only motivated by money, but there are other means which include career development and also career guidance that employees are able to acquire from their managers. It is evident that most studies have been conducted from Nigeria, Kenya, Ethiopia, England, and United State and among Manufacturing Firms but not Secondary School Science teachers in Adjumani district. Further still, most studies carried on rewards used quantitative methods, therefore, there is need to investigate effects of rewards on job performance of teachers with both qualitative and quantitative methods. Many definitions were advanced differently by different scholars. This therefore provides a basis for the study gap in relation to Career Development, Working Environment and monetary rewards among science teachers in Adjumani as key area for further research.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter contains the method that was used to conduct the study about “Rewards and Job performance of Science teachers in Secondary Schools in Adjumani district”. It covers a description of the research design, population and sampling techniques, data collection, quality control, data analysis, study limitations and delimitations.

#### **3.2 Research Design**

According to Kothari (2004), research designs deal with creation of decisions regarding the techniques which are utilized in gathering data, the type of strategies and instruments for sampling, and ways in which the constraints of time and cost can be dispensed.

This study adopted a cross section design with both quantitative and qualitative approach as the cross-section design was chosen because it permits collection of information from participants at a single point in time. The design appropriately fits in the time allowed to undertake the study. The quantitative approach was adopted in sampling, data collection, and data quantity control and data analysis. Quantitative data was collected to numerically predict the situation while qualitative data was used to understand the case in depth.

According to Amin (2005), a mix approach enables triangulation which makes it feasible for the researcher to make well informed findings and conclusions.

### **3.3 Population and Sampling Techniques**

#### **3.3.1 Parent Population**

The target population of 170 respondents out of which a sample consisting of: 04 Head teachers, 112 science teachers both from Government and Private Secondary Schools, and 01 Senior Inspector of Schools was considered. The study was carried out among some selected Science teachers in Adjumani district. The science teachers considered were graduates and holders of diplomas in education since these are considered to be qualified teachers. In addition, the participants were considered appropriate for this study because they had first-hand opinions, views and ideas regarding rewards and science teachers' job performance. This was based on the fact that they are key actors in the instrumental process in secondary schools in Adjumani district.

#### **3.3.2 Sampling Technique**

Cluster Sampling was used to select four secondary schools in Adjumani district whose Head teachers were considered as Key Informants with the Senior Inspector of Schools in the study. This is because the schools were located homogeneously within the district and were all having similar characteristics in terms of population (staff and students), they were mixed secondary schools both boarding and day.

Simple random sampling was used to select 07 science teachers from each school in the 16 Schools considered in the district. Each science teacher selected was given an equal chance of participation in the study. This helped in avoiding biasness and providing relevant, accurate and adequate data for the study. The advantage of a simple random sample is that it is easy to use and

it represents the larger population accurately. The sample size for the science teachers was determined by use of Krejcie and Morgan, (1970) table.

Purposive sampling was used to select Head teachers and Inspector of schools because of their extensive knowledge about the variables under study and the wider exposure as well as experience about the relationship between rewards and science teachers’ job performance in secondary schools. In principle they were willing to provide the information.

### 3.3.3 Sample

A sample is a part of the targeted population that is systematically selected to represent the whole population. The sample size for science teachers was determined using Krejcie & Morgan (1970) sampling table.

**Table 1: Sample size description**

Category	Population				Sample Size	Sampling technique
	Schools					Cluster
	P	Q	R	S		
Headteachers	01	01	01	01	04	Purposive sampling
Inspector of schools	1				01	Purposive sampling
Science teachers	112				112	Simple random sampling
<b>Total</b>					<b>117</b>	

**Source:** Researcher’s Sampling Scheme

### 3.4 Data Collection Tools

A number of tools were used during collection of data. Both primary and secondary data was collected and the major tools used included:

**(A) Self-administered questionnaire:** Mugenda (2007) defines Questionnaires as a series of written questions on a topic about which the respondents' opinions are required. This study made use of investigator self-administered questionnaires specifically designed in accordance with the study objectives. The questions contained within the questionnaire were both close-ended and open ended. The closed ended questions made use of an ordinal scale following a Likert scale. The questionnaire as a tool was of choice because it receives a high response rate.

**(B) Interview guide:** The interview guide was constructed in an orderly and complete manner as to collect information from Head teachers and District inspector of schools as the key informants. In this study, the interview was basically oral. This tool was chosen because it allows the interviewee to freely air out what he or she wishes to say about the subject matter.

### **3.4.1 Quality control of the instruments**

### **3.4.2 Validity of instruments**

Validity refers to the accuracy of the instrument used in research to collect meaningful and right data (Amin, 2005). The instruments were subjected to judges such as supervisors and research experts for consultations to validate the appropriateness and generalizability of the questionnaire to the topic of this study. The test of content validity index (CVI) was established through inter judge with two research consultants as follows;

$$CVI = \frac{\text{Number of judges who accept validity of question (n)}}{\text{Total number of judges (N)}}$$

CVI = n/N Where n = number of items related as relevant, and N = total number of items in the instrument.

The CVI for the interview guide and questionnaire was accepted at above 0.78 and according to Amin (2005) the least CVI recommended in a survey study should be 0.70 or 70%. The results are presented in table 2.

### 3.4.3 Reliability

Reliability refers to the degree of consistency in which a measuring instrument yields when the entity being measured has not changed (Leedy & Ormrod, 2001). Reliability for quantitative data was obtained by carrying out a test of reliability and analysis scale (Alpha Coefficient) using SPSS 20. Cronbach's alpha, which measures internal consistency, was used to estimate the reliability of the scaled items. The instrument was found reliable at Alpha above 0.70 as shown in Table 2. Reliability of 0.70 indicates 70% consistency in the score that were produced by the instrument. According to Amin (2005), an alpha of 0.5 or higher is sufficient to show reliability the closer it is to 1, the higher the internal consistency in reliability. The reliability of the questionnaire was used to establish the effect of rewards on job performance of the science teachers.

**Table 2: Reliability and Content Validity Index**

Items value	Content Validity Index	Cronbach alpha ( $\alpha$ )
Questionnaires	0.78	0.792
Interviews	0.80	0.755

A test retest was used to find the consistency of results before applying the Cronbach Alpha Coefficient. A similar study was carried out in other schools in Adjumani district which were not part of the sampled schools and Cronbach Alpha Coefficient was used to confirm that the study instrument was consistent each time it was used to measure reliability. Alpha value was found to

be 0.70 and above and according to Sekaran (2010) the instrument was considered consistent. This means that it produced the same results under the same conditions with other respondents from other secondary schools in Adjumani districts confirming the generalizability of the results of this study to the total population of science teachers in Adjumani district. Therefore, the results collected from the sample population can be used to explain observation in other secondary schools in the district.

### **3.5 Research procedure**

In this study, after the approval of the research proposal, the researcher obtained a letter of introduction from Kyambogo University, School of Graduate studies for introductory purposes to the relevant authorities within Adjumani district up to the secondary schools. This was followed by seeking informed consent from all the Head teachers and science teachers before proceeding with the interviews and data collection. After data collection, the researcher analyzed it and the findings were compiled as a report.

### **3.6 Data Analysis and Presentation**

#### **3.6.1 Quantitative Data Analysis**

The quantitative data involved data from the questionnaires only. The raw data was cleaned, sorted and coded. The data coded was entered in a computer, checked and was analyzed using the statistical package for social scientists (SPSS) software package to generate descriptive statistics.

However, correlation analysis was used to determine the nature of the relationship between variables at generally accepted conventional significant level of  $p=0.05$  (Sekaran, 2010). Data collected using the interview guide was as well edited, categorized according to themes and then



summarized into percentages into a computer spreadsheet. The numbers of responses were noted and the corresponding percentages computed. Pearson product moment correlation co-efficient was used to analyze relationship between working environment and the science teachers' job performance in secondary schools in Adjumani district.

### **3.6.2 Qualitative Data Analysis**

Qualitative data was collected using interview guide during the discussion with the administrators and documentary review. Descriptive statistics was categorized and organized based on pattern, repetitions and commonalities into different themes and sub-themes using content analysis and substantiated with quotations (Mugenda, 2007). This data was interpreted by explanations and substantiated using open responses from the field. The data was analyzed based on study variables and information were recorded in tabular forms accompanied with narratives. To protect the identity of the sixteen selected secondary schools, codes were used hence representing them.

### **3.7 Ethical considerations to the study**

The researcher first sought permission from relevant authorities before proceeding with the data collections. The researcher thereafter sought informed consent from the Head teachers and the science teachers who were first informed about the purpose of the study. To make sure there was confidentiality, different names instead of the names of respondents were used. The study also ensured there was privacy of information. Voluntary participation was encouraged from the respondents and the respondents were informed of their free withdrawal at any point they wish.

During the introduction, the researcher informed the participants that their participation was highly voluntary and they were free to withdraw from it at any point they fill without any

repercussion. They were as well notified that privacy would be ensured by using identification numbers instead of respondents' names or enterprise names and that anonymity as well as confidentiality of the responses would be maintained. After this, the science teachers were requested to consent to participate in the study. The data was then collected from only those science teachers who consented to participate in the study.

### **3.8 Limitations and delimitation**

The results of this study depended upon the co-poration, willingness and sincerity of the District Education Officer, District Inspector of Schools, Head teachers and Science teachers in answering the questionnaires and responding to the items in the interview guide. As a way of addressing some of the limitations, the researcher ensured that the respondents were fully informed of the purpose of the study, assured that their identity were to remain anonymous and the findings of the study was for only academic purposes.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

#### **4.1 Introduction**

This chapter entails data presentation, analysis, and interpretation. The study was carried out to establish the effects of rewards and job performance of science teachers in Adjumani District, Uganda. The study was centered on the three research questions namely; What is the effect of career development on the science teachers' job performance in secondary schools in Adjumani district?, What is the relationship between working environment and the science teachers' job performance in secondary schools in Adjumani District?, To what extent does a monetary reward affect the morale of science teachers job performance in secondary schools in Adjumani district? Therefore, this chapter is divided into two sub sections namely; analysis of background variables and presentation of findings for each study objectives.

#### **4.2 Questionnaire return rate**

Questionnaires were administered to 7 science teachers in each of the sixteen government Universal Secondary Schools (U.S.E) and private secondary schools selected for the study. 86 questionnaires out of 112 were dully filled and returned to the researcher, accounting for 76.78% return rate. The researcher personally delivered the questionnaires to the respondents and waited until they had been dully filled, which explains fairly high return rate. A response rate of 50% is deemed adequate for analysis and reporting, a response rate of 60% is good and a response rate of over 70% is very good (Mugenda,2003). In addition, the District Inspector of schools and head teachers of the respective schools selected in the study were interviewed and their responses are in table 4.1 below.

**Table 4. 1: Summary of the respondents**

Category of respondents	Administered instruments	Returned instruments	Percentage return
Teachers	112	86	76.78 %
Head Teachers	04	04	100%
DIS	01	01	100%
<b>Total</b>	117	91	77.78%

**Source: Primary data (2019)**

### 4.3 Background characteristics of the respondents

The characteristics of the study population are summarized in this section. The major variables were, current position held in the school, age, gender, qualification and period of employment in school. The study was conducted on 91 respondents of which 86 were at the position of science teacher and 4 were head teachers (see Table 4.2). In addition, 1 (one) District Inspector of Schools (DIS) was interviewed to re-affirm the opinions of the teachers and head teachers.

**Table 4. 2: Distribution of respondents by Sex, Experience and Educational level**

Category of Respondent	Sex		Experience					Educational level			
	M	F	Below 1yr	1-2yrs	3-4yrs	5-6yrs	Above 6yrs	Post Grad	Dip	Deg	Others
DIS	1(100%)	-	-	-	-	-	-	1(100%)	-	-	-
H/T	3(75%)	1(25%)	-	-	-	-	-	4(100%)	-	-	-
Science Teacher	72(83.7%)	14(16.3%)	24(27.9%)	16(18.6%)	13(15.1%)	8(9.3%)	25(29.1%)	2(2.3%)	43(50%)	31(36%)	10(11.7%)

**Source: Primary data (2019)**

The study involved collecting data on gender of the respondents for comparison of reward factors between sexes, whereas the study did not treat gender as a reward factor. 83.7% of the respondents were males while 16.3% were females as shown in table 4.2. This implies that the cultural influence in Madi sub-region in Adjumani district are still strong where women's education is not valued hence few ladies go to higher institutions. The researcher also presumed that the age diversity of the respondents would be of great significance to the study on grounds that age variations could impact on their commitment to job performance. This implies majority of the science teachers are still youths and in experienced in handling practical pedagogical skills in teaching science. In terms of age distribution of the respondents, the majority of the science teachers (30.2%) fell in the age group of 26 to 30 years and only 5% were in the age group of 36 to 40 years. Age is significant in job performance as employees' competencies increase over time and this improves on their job performance. Further, the researcher believed that level of education would have an impact on the individual science teachers' commitment to job performance, having been conditioned by strong professional ethics and codes of conduct governing the profession.

Data on the qualification of the respondents was also collected and from the above table, it can be stated that the science teachers in the selected schools are on average Diploma holders since up to 50% attained education up to Diploma level while few up to 36% are Degree holders, 2.3% had Post-Graduate and 11.7% had other qualifications. This means the Science teachers in the selected schools are able to teach better mostly in O-level classes instead of A-level classes resulting in decline of A-level Science education in the district. It also means very few science teachers pursue higher education at Degree level which does not prepare them for prospects of job promotion.

The questionnaires also required that respondents indicate the period of time they have served in their current stations. It was assumed that the duration of service in a particular learning institution would influence commitment to job performance. The findings show that the biggest percentage (29.1%) of the respondents had served for more than 6 years at their current stations. Long period of service at the current station coupled with the majority of the respondents falling in the age group of above 36 years implies an experienced Science teacher to deliver on the job. 27.9% of the respondents indicated that they had been in the current stations for less than a year. In this respect, it can be argued that young science teachers tend to move from one school to the other looking for better payment and they are free to leave because most of them are not on government payroll. While long stay at the same station also implies high level of commitment and it mostly apply to the science teachers who are on Government pay roll.

#### **4.4 Objective one: Effect of career development on Science teacher job performance in secondary schools in Adjumani District.**

This section presents findings on aspects or statements of career development that respondents agreed with or disagreed with, as to be improving their job performance in the schools they are employed and therefore, several questions were presented to the respondents in the selected schools and the responses are tabulated in the table 4.3 below.

**Table 4. 3: Responses on Career Development and Science Teachers performance****KEY:** SD=Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA=Strongly Agree,

% =Percent

No	Career Development	Responses									
		SD		D		NS		A		SA	
		F	%	F	%	F	%	F	%	F	%
1	Further training of science teachers encourages superior performance	3	3.5	5	5.8	8	9.3	29	33.7	41	47.7
2	Career development through Seminars encourage employee retention	6	7.0	8	9.3	17	19.8	40	46.5	15	17.4
3	My school organizes workshops to enhance science teachers performing abilities	6	7.0	24	27.9	22	25.6	28	32.6	6	7.0
4	Organizing seminars to re-orient science teachers on new pedagogical skills motivates science teachers job performance	1	1.2	5	5.8	10	11.6	41	47.7	29	33.7
5	My school allows upgrading of staff to improve performance	4	4.7	3	3.5	14	16.3	36	41.9	29	33.7
6	Many science teachers perform better because of career development	0	0.0	14	16.3	16	18.6	38	44.2	18	20.9
7	Career development does improve one's performance	7	8.1	3	3.5	13	15.1	49	57	14	16.3
8	The qualification level of the employees determines the science teachers' performance	16	18.6	16	18.6	16	18.6	34	39.5	4	4.7

**Source: Field data, August 2019**

The respondents were asked to indicate whether training teachers encourages superior performance. From table 4.3 above, 47.7% of the respondents indicated that they strongly agreed, 33.7% indicated that they agreed, 9.3% were not sure, 5.8% disagreed and 3.5% strongly disagreed with the view. It can therefore be deduced that the vast majority of the respondents in

the selected schools believe exposure to training makes them to effectively perform in their teaching assignments. These findings also point to the fact that teacher training programs and institutions are important to prepare workforce that is ready to deliver on the job. These therefore suggest that teacher training encourages superior performance.

Furthermore, on the statement that career development through seminars encourages s employee retention, the majority of the respondents that is 46.5% generally agreed, 17.4% strongly agreed, 19.8% were not sure, 9.3% disagreed and 7.0% strongly disagreed as summarized in Table 4.3. These findings imply that acquisition of useful skills and experience through seminars helps to promote career growth. In addition, seminars help to build Science teachers love towards the profession and thus they remain on the same job for long. This is done through SESEMAT and other in-service training.

The respondents were also asked to show whether their performing abilities are enhanced when their respective schools organize workshops for Science teachers. From Table 4.3, 32.6% of the respondents agreed, 7.0% strongly agreed, 25.6% indicated, not sure, 27.9% disagreed and 7.0% strongly disagreed. The findings further show that most Science teachers in the selected schools in this study prefer that their respective schools organize workshops as these enhance their work abilities. However, these findings also imply that some Science teachers believe they can still perform better at their work places even without workshops.

Another career development aspect that respondents were asked about was whether organizing seminars to re-orient teachers on new pedagogical skills motivates Science teachers to have a better job performance. As seen in Table 4.3, 47.7% of the respondents who were also the majority agreed, 33.7% strongly agreed, 11.6% indicated not sure, 5.8% disagreed and 1.2%



strongly disagreed. These results point to the fact that the respondents in the selected schools prefer to have new pedagogical skills through seminars as they would get motivated to perform better. It can also be noted that most Science teachers in the selected schools in this study are not contented with the old pedagogical skills they possess, so they yearn for new skills so that they remain relevant on the job.

On the view of staff upgrading and performance improvement, Table 4.3 reveals that the majority of respondents constituting 41.9% agreed that their performance improved when their schools allow them to upgrade. 33.7% of the respondents strongly agreed with the view, 16.3% indicated not sure, 3.5% disagreed and 4.7% strongly disagreed. These findings show that the administrators of the selected schools chosen under this study are aware of the need for staff career development through allowing their Science teachers to upgrade. The head teachers, basing on their responses when interviewed agreed that giving opportunities for upgrading is one way of rewarding Science teachers to improve in their job performance. However, these findings also indicate that some teachers (16.3%) are not aware of existence of such staff career development avenues like upgrading in their schools.

On the view that career development improves Science teachers' performance, Table 4.3 reveals that 44.2% respondents representing the majority, agreed, 20.9% strongly agreed, 18.6% indicated not sure, 16.3% disagreed and 0.0% strongly disagreed with the view. The results imply a general consensus among the Science teachers in the schools under study that career development is crucial for better performance although 18.6% were not sure and 16.3% disagreed with the idea that career development improves science teachers performance in secondary schools..

Furthermore, the respondents were asked to comment on the statement that career development improves on an individual Science teachers' performance. From the Table 4.3, results indicated that 57.0% of the respondents agreed, 16.3% strongly agreed, 3.5% disagreed, 8.1% strongly disagreed and 15.1% indicated not sure. These imply that, just like career development improves the performance of Science teachers in general, it also improves that of an individual Science teacher according to this finding.

On the question of whether level of qualification determines Science teachers' performance, respondents disagreed by 18.6%, and also strongly disagreed by 18.6%, 39.5% agreed, 4.7% strongly agreed as seen in Table 4.3. From these results, it can be stated that the Science teachers in the selected schools contend that Science teachers' performance is related to the level of qualification. However, these results contradict with the findings on the view that an individual Science teacher in the selected schools was performing better because of attaining a higher qualification; onto which the majority of the respondents agreed with. On the other hand, respondents seem to consider the fact that a Science teachers' performance is determined by different factors apart from level of qualification.

On the other hand, the respondents were also asked to give their opinions on what they think makes career development fail to improve Science teachers' performance in the selected schools. Various ideas were presented by the respondents. These were tabulated and represented on a table 4.4 as shown below.

**Table 4. 4: Responses on why career development fails to improve Science teachers’ job performance in secondary schools in Adjumani district.**

<b>Science Teachers’ Responses</b>	<b>Frequency (F)</b>	<b>Percentage (%)</b>
Teachers’ attitude	10	11.6
No love for the job	6	7.0
No job satisfaction	12	14.0
No salary increment	19	22.1
Career change	7	8.0
Unfavourable environment	8	9.3
Inapplicable skills	9	10.5
Preference of old skills	2	3.5
Failure to apply	12	14.0
<b>TOTAL</b>	<b>86</b>	<b>100</b>

**Source: Primary Data (2019)**

From Table 4.4 above, the majority of the respondents that is 22.1% agreed that, no salary increment is the main reason why career development may not improve Science teachers’ performance.14.0% pointed out that both no job satisfaction and failure to apply the science principles. 11.6% said because of science teachers’ attitude, 10.5% said it is because of inapplicable skills, 9.3% cited unfavorable work environment, 8.0% because of career change, 7.0%, no love for the job and 3.5 % indicated preference of old skills.

*During the interviews with the District Education Officer (D.E.O) and Head teachers of schools P and Q on 6<sup>th</sup> and 7<sup>th</sup> August, 2019 in regard to effect of career development on Science teacher job performance in Secondary Schools in Adjumani district.*

*Both the D.E.O and the head teachers noted that training Science teachers, staff upgrading, organizing seminars and staff re-orientation has positive effect on the Science teachers by improving on their skills, confidence and opens doors for promotion to next level.*

*Further still, all head teachers cited the major reasons for failure of career development as unfavorable work environment, inapplicable skills, failure to apply the newly acquired skills, career change, no salary increment and negative Science teachers' attitude towards job performance.*

#### **4.5 Objective two: To examine the relationship between working environment and the Science teachers' job performance in Secondary Schools in Adjumani district.**

The second objective was to examine the relationship between working environment and science teacher's job performance in Secondary schools in Adjumani district. The tasks under this objective involved analyzing the data using SPSS package. However, correlation analysis was used to determine the nature of the relationship between working environment and the Science teachers job performance at a generally accepted conventional significant level of  $P=0.05$ , using the research hypothesis.

**Research Hypothesis 1: There is statistically no significant relationship between Working Environment and the science teachers’ job performance in secondary schools in Adjumani district.**

Pearson Correlation co-efficient test was carried out to test whether there is a relationship between the working environment and the Science teachers job performance in secondary schools in Adjumani district. The results are summarized in Table 4.5

**Table 4. 5: Working Environment and the science teachers’ job performance.**

		Working Environment	Science Teacher Job Performance
Working Environment	Pearson Correlation	1	.509
	Sig. (2-tailed)		.012
	N	86	86
	<hr/>		
Science Teacher Job Performance	Pearson Correlation	.509	1
	Sig. (2-tailed)	.012	
	N	86	86
	<hr/>		

**Correlation is significant at the 0.01 level (2-tailed).**

The correlation analysis results in Table 4.5 shows there was a strong positive statistically significant relationship between working environment and Science teachers job performance ( $r=.509$ ,  $p= .012$ ,  $N=86$ ). This implies that working environment strongly influences science teacher’s job performance. That is, a good working environment enhances better science

teachers' job performance in Adjumani District. Given that the p-value was less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted.

Interview results from one head teacher of school Q held on 5<sup>th</sup> August 2019 about the relationship between the working environment and job performance of Science teachers in Adjumani district indicate that:

*She said “One of the roles of School manager is to encourage Science teachers to conduct teaching and learning effectively. She added that Science teachers are encouraged to perform more by good working conditions such as spacious Laboratory rooms, access to internet and good working relations with other teachers. This positively encourages them. Likewise, if the working condition is bad, it negatively affects Science teacher job performance. In terms of staff welfare which covers accommodation, feeding and transport refund. The head teacher further said improving the Science teachers working environment yearly would make them to execute their duties effectively and equipping the library with modern books would improve performance”.*

*Generally, the head teachers cited some challenges in getting funds to build schools' old infrastructure and purchasing enough instructional materials.*

#### **4.6 Objective three: Extent to which monetary rewards affect the morale of the Science teachers job performance in secondary schools in Adjumani district.**

The tasks on the objective three in the study were aimed at establishing the extent to which monetary rewards affect the morale of the science teachers to perform. The aspects probed were those related to salaries and allowances which respondents agreed or disagreed with as to which

ones raise their morale to perform at their work place. Their responses were also rated on a 5 level Likert scale, and the findings are presented in form of frequencies and percentages in table 4.6 below.

**Table 4. 6: Responses on salaries and allowances and Science Teachers performance**

**KEY:** SD=Strongly Disagree, D=Disagree, NS=Not sure, A=Agree, SA=Strongly Agree, %=Percent.

No	Salary and Allowances	Responses									
		SD		D		NS		A		SA	
		F	%	F	%	F	%	F	%	F	%
1	My salary is paid in time	9	10.5	17	19.8	4	4.7	40	46.5	16	18.6
2	I feel motivated to work mainly because of my high salary	17	19.8	32	37.2	5	5.8	22	25.6	10	11.6
3	Allowances and Bonuses make me perform better	4	4.7	13	15.1	13	15.1	40	46.5	16	18.6
4	Transport, extra duty allowance helps me to build loyalty and work excellence	6	7.0	19	22.1	10	11.6	36	41.9	15	17.4
5	I am satisfied with the bonus accorded to me	20	23.3	22	25.6	10	11.6	29	33.7	5	5.8
6	Extra loads are paid for in this school	23	26.7	26	30.2	14	16.3	18	20.9	5	5.8
7	I am paid for being the best teacher of the year	28	32.6	30	34.9	13	15.1	14	16.3	1	1.2
8	My salary is commensurate to the work I do	15	17.4	27	31.4	17	19.8	15	17.4	12	14
9	Salaries should be paid according to ones' qualification	10	11.6	25	29.1	9	10.5	22	25.6	20	23.3
10	Transport and housing allowance are paid to science teachers	35	40.7	25	29.1	12	14.0	8	9.3	6	7.0

**Source: Primary Data, 2019**

On the first item of monetary rewards, respondents were asked to indicate whether their salaries are paid on time and whether it improves their morale to perform better. As seen in Table 4.6 out of the 86 respondents, 44.6% agreed, 18.6% strongly agreed, 4.7% were not sure, 19.8% disagreed and 10.5% strongly disagreed. These results imply that Science teachers in the selected schools appreciate the payment schedule used by their employers and therefore, ought to be motivated to carry on their duties as required. Regular and timely payment of salaries enables Science teachers to effectively plan for their personal development and thus become self-reliant economically which further them more stabled at work place.

Respondents were also asked to indicate whether or not they feel encouraged to work mainly because of their high salary and in return, the majority 37.2% disagreed with the idea, 19.8% strongly disagreed, 5.8% were not sure, 25.6% agreed and 11.6% strongly agreed. As shown in the table 4.6, it can be noted that high salary payment is not the main pre-requisite to Science teacher's job performance. It means to a large extent; other factors make Science teachers to work rather than just high salary payment.

For the question, whether allowances and bonuses make the Science teachers perform better, 46.5% and the majority agreed with the view, 18.6% strongly agreed, 15.1% were not sure, 15.1% disagreed, and 4.7% strongly disagreed. From these results on allowances and bonuses shown on Table 4.6 above, it is noted that to a large extent Science teacher prefer to be paid allowances and bonuses in addition to their main salary. However, these results also show that there are Science teachers who can work without allowances as long as they are paid their main salary.



Furthermore, when the respondents were asked to comment on transport, extra duty allowances and work excellence, 41.9% agreed that; transport and extra duty allowances help them to build loyalty and work excellence and these were the majority. 17.4% strongly agreed, 11.6% were not sure, 22.1% disagreed and 7.0% strongly disagreed as seen in Table 4.6. These findings imply that there is a general consensus on the importance of transport and extra duty allowances in building work excellence and loyalty by the science teachers in the selected schools.

The respondents were also asked to indicate whether they are satisfied with the bonuses given to them or not, 33.7% agreed, 5.8% strongly agreed, 11.6% indicated not sure, 25.6% disagreed and 23.3% strongly disagreed. The majority of the respondents fell on the “disagreed” side thus to a large extent (48.9%) of the respondents in the selected schools are dissatisfied with the bonus accorded to them, while small percentage (39.5%) are satisfied. This implies that allowances and bonuses encourage science teachers to perform better.

Another aspect probed from the respondents was whether extra load was being paid for in their schools. From Table 4.6, the majority 30.2% disagreed that they are paid for extra load in their schools, 26.7% strongly disagreed, 16.3% indicated not sure, 20.9% agreed and 5.8% strongly agreed. These responses show that, the Science teachers in the schools under study are not paid for the extra load they do and therefore they are not encouraged to perform extra. Furthermore, the schools in which the study was conducted do not recognize the importance of payment for extra load in order to keep the science teachers committed to work.

Respondents were also asked to comment on whether they are paid for being the best performing Science teacher of the year in their respective schools. The majority of the respondents 34.9% disagreed, 32.6% strongly disagreed, 15.1% were not sure, 16.3% agreed and 1.2% strongly

agreed. This shows that schools selected in the study probably have limited interest to venture into other monetary avenues and funds are not allotted to rewarding Science teachers in other monetary terms like best performing Science teacher of the year awards.

On the statement that “my salary is commensurate to the work I do”, majority of the respondents 31.4% disagreed that they are being paid a commensurate salary. 17.4% strongly disagreed, 19.8% were not sure, 17.4% agreed and 14.0% strongly agreed. (See Table 4.6). It can therefore be stated that to a large extent, the Science teachers in the selected schools in the study feel that payment for their work is non-commensurate.

On the element whether salaries should be paid according to one’s qualification. Table 4.6 reveals that 29.1% disagreed, 11.6% strongly disagreed, 10.5% indicated not sure, 25.6% agreed and 23.3% strongly agreed. These responses imply that the respondents would be motivated to perform better if such efforts are rewarded in equal measure. At the same time, these results show that what Science teachers appreciate as good rewards vary from one Science teacher to the other.

Another aspect that the researcher probed was the payment of transport and housing allowances to Science teachers. Table 4.6 reveals that 40.7% who are also the majority strongly disagreed that transport and housing allowances are being paid to them. 29.1% disagreed, 14.0% indicated that they were not sure, 9.3% agreed and 7.0% strongly agreed. These results imply that very few schools under study do not value that transport and housing allowances improve the performance of science teachers. Interview results from one head teacher of school R held on 4<sup>th</sup> August, 2019 about salaries and job performance indicated that:

*“Monetary rewards such as prompt payment of Science teachers’ salaries, extra duty, transport and housing allowances satisfy the Science teachers and make them perform better. However, it depends on the attitude of the Science teachers and if the Science teacher has negative attitude towards work, however much the monetary rewards given, the performance of such Science teacher will remain low”.*

*All the head teachers remarked that “sourcing sufficient funding to cater for all the monetary rewards to the Science teachers remain a big challenge. Therefore, the Science teachers remain discontented with the bonus and allowances paid to them”. The head teachers therefore suggested that, “there is need for ministry of education, school community, parents, teachers’ association (P.T.A) to increase the grants given to schools so that Science teachers can get commensurate payment of salaries and allowances”.*

## CHAPTER FIVE

### SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the discussion of results, draws conclusions according to the findings on each of the study objective and gives recommendations as per research objectives.

#### 5.2 Summary

In objective one, to examine the effect of career development on the science teachers, findings revealed that career development has positive impact on science teachers' job performance in secondary schools in Adjumani district. This is done through seminars and workshops, in-service training and up-grading after getting study leave with pay.

The study also found out that, there was a strong positive statistically significant relationship between working environment and science teachers' job performance with correlation coefficient ( $r=.509, p=.012, N=86$ ).

Lastly, in line with monetary rewards effect on science teachers, it was found that prompt payment of science teachers' salaries improves their morale to perform better as seen in Table 4.6.

#### 5.3 Discussion

##### 5.3.1 Effect of career development on science teachers' job performance in secondary schools in Adjumani district

From Table 4.3 in chapter four, it was found out that career development through seminars and workshops encourages employee retention. This is in line with the findings of Agwu (2013), who notes that career development is one aspect in an organization if not attended to, then it will hurt professional development and impedes improvement in labor productivity. Rizwan (2010) noted

clearly that employee training through seminars, workshops and re-orientation results in effective preparation of an individual's capability to perform tasks competently. Murphy (2007) viewed career development as a lifelong set of activities that molds people to develop desirable knowledge, skills and attitudes needed in solving real life problems both at work place and elsewhere. Institutions therefore need to embrace regular training of staff so that defined behavior patterns expected in the accomplishment of specialized task can be acquired.

From the study, it was also discovered that organizing seminars to re-orient science teachers on new pedagogical skills refreshes science teachers to perform better at the jobs. This is in agreement with Okumbe (2001)'s study which reported that seminars generate new knowledge and skills which ensures continuous updating and upgrading of knowledge and thus adding to employee's career growth and development.

Wayne (2006) asserts that the qualification level promotes employees' satisfaction and personal growth and hence their productivity. Higher qualification can be promoted in the work place through staff upgrading programs which the study also discovered to be a good program.

The study found out a number of reasons for failure of career development to enhance science teacher's performance. Some of which include, unfavorable work environment, inapplicable skills, failure to apply the newly acquired skills, career change and no salary increment, attitude of the teacher, no love for the job, no job satisfaction and science teachers' preference of old skills rather than newly acquired skills as seen in Table 4.4 in the previous chapter. These should be noted with concern as schools sometimes embark on career development while overlooking what may undercut its ability to stimulate science teachers and promote better performance.

### **5.3.2 Relationship between working environment and science teachers job performance in secondary schools in Adjumani district**

Objective two of the study stated, “To examine the relationship between working environment and the science Teachers’ job performance in secondary schools in Adjumani district”. I sought to solicit the data about the relationship between working environment and science teachers’ job performance using the study hypothesis which stated, “There is statistically no significant relationship between working environment and science teachers’ job performance in Adjumani district”.

The major findings of this hypothesis as mentioned in chapter four, table 4.3 was that: There was a positive relationship between working environment and science teacher’ job performance with correlation coefficient (  $r=.509$ ,  $p=.012$ ,  $N=86$ ). This means that when the working environment is improved, it leads to better performance of science teachers. This also explains why some teachers stay in the same school or even district for a long time because of favorable working environment.

The finding of this study is consistent with that of Murphy (2007) who says that when working environment is good in an organization with the plans for developing the careers of the staff, it leads to commitment of the staff and better performance.

This study is also supported by Rahim and Daud, (2013) who acknowledges some of the non-financial rewards such as praise and recognition as encouraging tools for increasing employees’ retention in an organization.

There was moderately strong positive relationship between science teachers' conditions of working environment and their performance in Adjumani district, where by better conditions of working environment are related to superior performance. In particular, the study established that majority of the science teachers are affected in their duties because they commute from far places since the school does not provide accommodation for them. This was seen by the science teachers' responses on whether they have been provided with accommodation within the school to make them perform better. However, majority of the science teachers indicated they were not given accommodation. This finding is supported by Shann (1998) who confirmed that when the organization supports its staff with other benefits like accommodation, it improves their level of performance.

Fredrick Herzberg as cited in (Bartol & Martin 1993) observed factors in the work environment that caused satisfaction and dissatisfaction among the workers. Herzberg in his famous two-factor theory suggested that the factors, which contributed to job satisfaction (motivators) and those which contribute to dissatisfaction (hygiene) must be applied separately on workers to enhance increased productivity. A good working environment, according to this theory, will determine the knowledge children receive from their science teachers, the level of skills to enhance the development of young minds; and the sense of security children feel. This is in line with the study which emphasizes that good working environment for science teachers leads to better performance.

### **5.3.3 Extent to which monetary rewards affect the morale of the science teachers to perform in secondary schools in Adjumani district**

The third objective in this study involved establishing the extent to which monetary rewards affect the morale of science teachers to perform in the secondary schools in Adjumani district. This was meant to answer the third research question which states: “To what extent does a monetary reward affect the morale of science teachers job performance in secondary schools in Adjumani district?”. In line with this, and as seen from Table 4.6 in chapter four, it was established that prompt payment of science teachers’ salaries improves their morale to perform better.

Artz (2014) states that salaries should be paid promptly and promotion of workers should be accompanied by salary rise. From this study it was also noted that science teachers work, not because of being paid highly but rather due to a wide range of factors. Employers should look beyond high salary payments unto other aspects of teacher motivation. Ali et al, (2016) noted that high pay alone is unlikely to create a satisfying environment for teachers to perform better.

The study also found out that payment of bonuses, extra duty, transport, and housing allowances, and rewards for best performing science teacher, to a large extent makes science teachers to perform better. This is in line with the views of Bala & Bello (2017) when they noted that monetary rewards and allowances improve teachers job performance. In the schools under this study, it was revealed that science teachers are discontented with the bonuses and allowances paid to them as shown in Table 4.6. In addition, science teachers feel what is being paid to them as salary is not commensurate to their effort.



Gunger (2011) noted that when pay is linked with performance, any equality is undermined because there is judgmental aspect and it makes this relationship obsolete. The interpretation of this is that the hard-working science teachers are discouraged when they are paid the same salary like the lazy ones. Workers are persuaded to perform better if their efforts are rewarded in equal measure.

## **5.4 Conclusions**

From the research findings presented and discussed in the previous two chapters, a number of conclusions can be drawn following objective by objective as follows.

From objective one, following the research findings, it was found that science teacher rewards and science teacher-job performance is enhanced by career development mainly through staff upgrading, organizing seminars, workshops, and staff re-orientation. However, career development may fail to improve job performance as a result of mainly unfavorable work environment, preference of old skills, career change, and inapplicable skills. Therefore, it is concluded that career development has got a positive effect on science teacher job performance.

Considering the second objective, the study provided enough evidence to suggest that work environment is an important area in science teacher job performance. Basing on this finding, it is concluded that providing spacious libraries, laboratories, classrooms and adequate compound space which has secure perimeter fencing positively enhances better job performances of science teachers in secondary schools.

On objective three, the study found out a number of monetary rewards that affect science teachers' morale to perform in secondary schools in Adjumani district to include; best performance rewards, bonuses, housing and transport allowances, and timely and commensurate

payment of salaries and allowances. Basing on these findings, it can be concluded to a large extent, monetary rewards affect science teachers' morale to perform in secondary schools.

Rewards for science teacher's through career development, better work environment and monetary form help to build capacity for better work teams which enhances opportunities for schools to achieve their goals and objectives. The major staff demotivating factors in schools include, un-safe working environment, absence of laboratories, libraries with inadequate sitting facilities, non-commensurate salaries and allowances; absence of payment for extra duty and loads' allowances and absences of best performing science teacher rewards.

### **5.5 Recommendations**

Workshops, seminars, and staff upgrading were shown in this study to increase science teachers' level of performance. Schools should therefore organize workshops and seminars for staff career development. Besides avenues for upgrading with paid study leave will enable the science teachers acquire new skills for effective job performance.

In the study, it was found that work environment has positive effect on science teachers' job performance. Therefore, school proprietors should provide conducive science-teacher work environment by availing libraries, classrooms, laboratories with adequate sitting facilities and equipment for use. In addition, adequate compound space with secure perimeter fencing is necessary.

Payment of allowances and bonuses helps to boost science teacher's ability to afford their personal needs that encourages them to work harder for better results. Schools should budget and

set aside funds to pay allowances and bonuses to the science teachers in order to supplement on the salaries paid by the government. This leads to loyalty and love for the profession.

School proprietors and Government should put in place staff housing schemes within or near the school. If this is not possible, housing allowance should be given since these are seen as great work environment comfort enhancers and job performance promoters according to this study.

### **5.6 Suggested areas for further research**

Although this study contributes to the body of knowledge on rewards and job performance of science teachers, there are still a number of limitations. To begin with rewards and science teacher's performance was preferred for this study however, the future studies could be conducted on the effect of promotion on science teachers job performance in secondary schools to establish whether promotion can influence performance of the teachers.

Another study is recommended under the same or related topic for a large sample size of schools across the country to establish whether the results will yield the same findings.

Furthermore, this study did not look at "science teacher rewards and student's performance in external examinations", therefore, a study to statistically link these aspects in both private and public schools in the country is recommended.

## REFERENCES

- Adjumani District Service Commission, Education Committee. (2008, August). *Status of Education in the district: Report Presented to the District Council.*
- Agwu, M.O. (2013). Impact of fair reward system on employees “job performance in Nigeria Agip Oil Company Limited, Port Harcourt. *British Journal of Education, Society and Behavioral Science*, 3(1), 47-64.
- Ahn & Vigdor. (2010). *The impact of incentives on Effort; teacher Bonuses in North Caroline.* (Working paper series No. 10-06).
- Aktar, S., Sachu, M.M. & Ali, M.E. (2012). The impact of rewards on employee performance in commercial banks in Bangladesh: An empirical study. *IOSR Journal of Business and Management*, 6(2), 9-15.
- Akyeampong K. & Lewin K. (2002) “*From Student Teachers to Newly Qualified*
- Akyeampong, K. & Stephens, D. (2002). *Exploring the backgrounds and shaping of beginning student teachers in Ghana: toward greater contextualization of teacher education.* *International journal of Educational Development* 22(3-4): 262-274.
- Ali et al. (2016). *Selection of Exotic Spring maize varieties Based on Field Evaluation Emphases on Yield Traits.* *Int. J. Curr. Trend. Pharmacobiol. Med. Scie.* 1(4), 29-35.
- Allen, R. and M. Helms, (2002). *Employee perceptions of the relationship between strategy, rewards and organizational performance.* *Journal of Business*
- Amin, M.E. (2005). *Foundations of statistical inference for social sciences* Kampala, (in press).

- Anderson, L. & Olsen, B. (2006). *Studying the career pathways of urban teachers in Los Angeles: Who stays, who leaves, who shifts into other urban education work?* Los Angeles: Institute for Democracy, Education and Access, Center XUCLA.
- Armstrong, M. (2006). *A handbook of human resource management Practice.*
- Artz, B. (2014). *Fringe Benefits and Job Satisfaction* (working paper NO 08-03). University of Wisconsin-Milwaukee: United State.
- Bala, B. & Bello, J. M.K. (2017). *Monetary Reward and Teachers' Performance in Selected Public Secondary Schools in Kano State.* *Journal of Education and Practice.* [www.iiste.org](http://www.iiste.org). ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) vol.8, No.7,2017.
- Bennel, P. (2004). *Teacher motivation and incentives in Sub-Saharan Africa and Asia.* *Knowledge and Skills for Development*, Brighton, July 2004
- Berry & Darling-Hammond, (2006). *Reforming teacher preparation and licensing: Debating the evidence.* *Teachers college Record*, 102, 28-56.
- Berry (2004). *Can Assignment tests measure dispersal?* Sage Publications.
- Bett, W.K., Onyangu, M., & Bantu, E. (2013). *Role of Teacher Motivation on Student's Examination Performance at Secondary School Level in Kenya: a case study of Kericho District.* *International Journal of Advanced Research*, 1(6), 547-553.
- Boddy, D. (2008). *Management: An introduction.* 4<sup>th</sup> edition Prentice Hall.
- BOGLER, R. 2001. *The influence of leadership style on teacher job satisfaction.* *Educational Administration Quarterly*, 37, 662

- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). *Explaining the short careers of high achieving teachers in schools with low performing students*. *American Economic Review*, 95(2), 166-171.
- Bratton, J. (2003). *Human Resource Management*. 6<sup>th</sup> edition. Edinburg Napier University, UK.
- Charity, E.A. Timinefere, C.O, (2011). The effects of Monetary and Non-Monetary Rewards on The Employee's performance in Manufacturing Firms in Rivers state. *Nigeria Journal of Sociology, Psychology and Anthropology in Practice*, 3(1), 120-129.
- Cole, G. A. (2002). *Personnel and Human Resources Management (5th ed.)* London: Book Power.
- Depedri, S. Tortia, E. Carpita, M. (2010). *Incentives, job satisfaction and performance: Empirical evidence in Italian social enterprises*. European Research Institute on Cooperatives and Social Enterprises Working Papers No. 012/10.
- Desler, C.R & Schindler, P.S. (2003). *Business Research Methods*. New Delhi: Tata McGraw Hill.
- economics, 12(3), 281-299.
- Engelland, A., & Riphahn, R. T. (2005). *Temporary contracts and employee effort*. *Labor*
- Feng C. X.Y. (2005). *Multi-objective Optimization Model of the Emergency Logistics Distribution with Multicycle and Multi-item*. *Chinese Journal of Management Science*, 25(4), 124-132, Apr. 2017.
- Gubman (2008). *Use of rewards in the workplace; Improving Organizational Sustainability*. Retrieved from [www.gubmanconsulting.com/News/01/Rewards.html](http://www.gubmanconsulting.com/News/01/Rewards.html).

- Gunger, P. (2011). The relationship between Reward Management system and Employee performance with the mediating Role of motivation. *A Quantitative study on Global Banks procedia social and Behavioral Sciences*, 24, 1510-1520.
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2004). *Why public schools lose teachers*. Journal of Human Resources, 39(2), 326 – 354.
- Harding, J. and Mansaray, A. (2006). *Teacher motivation and incentives in Sierra Leone*. London: DFID.
- Herzberg, F. (1959). *The Motivation to Work*. New York: John Wiley and sons, Inc.
- Ingersoll, R & Smith (2004). *Why do high poverty schools have difficulty in staffing their classrooms with qualified teachers?* Washington, DC: Center for American Progress.
- Ingersoll, R.M. (2001). *Is there really a teacher shortage?* Seattle, WA: Center for the Study of Teaching and Policy. Cambridge, MA: Harvard University Press.
- International Journal of Education Development
- Karl Kepner (2001). *Transformational Leadership; The Transformation of Managers and Associates*. Sage Publications, Inc.
- Kothari, C.R. (2004). *Research Methodology; Methods and Techniques*, 2<sup>nd</sup> Ed, New Delhi; New Age International Limited.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities; Educational and psychological measurements, 30. Pp. 607-610. State: Publisher.

- Kressler, A. (2003). Research Project Application To DFID:Teacher Motivation and Incentives In Low-Income Developing Countries. Knowledge and Skills for Development. Brighton.
- Kuenzi, J. (2008). *Science, Technology Engineering and mathematics (STEM) Education: Background, Federal Policy, and Legislative Action*. U.S. Department of Education. Report of the Academic Competitiveness Council, Washington, D.C, 2007, p.11.
- Leedy, P. & Ormrod, J. (2001). *Practical research: Planning and design (7th ed.)*. Upper Saddle River, NJ:
- Lyons, F.H. and Ben-Ora, D. (2002), “Total reward strategy: the best foundation of pay for performance”, *Compensation and Benefits Review*, Vol. 34 No. 2, pp. 34-40.
- Maicibi, N.A (2003). *Pertinent issues in Employees’ Management: Human Resource and Educational Management*. Kampala. Net Media Monitor Publishers.
- Malloy, W. W., & Allen, T. (2007). *Teacher retention in a teacher resiliency-building rural school*. *The Rural Educator*, 28(2), 19-27.
- McCollum, S (2001). “How merit pay improves education”, *Educational Leadership*. 58(5), pp 21-24.
- middle schools*. *The Journal of Educational Research*, 92(2), 67-75.
- Ministry of Education and Sports (2013). *The Education and Sports Sector Annual Report*. Kampala, Uganda.
- MoES (2015), *Policy and Basic Requirements and Minimum standards indicators for Educational institutions*. Kampala, Uganda.



- Mugenda, T. (2007). *Essential of research methodology, quantitative and qualitative approach*. Nairobi Acts Press.
- Mulkeen, A., & Chen, D. (Eds.) (2008). *Teachers for rural schools: Experiences in Lesotho, Malawi, Mozambique, Tanzania and Uganda*. Washington D.S.: World Bank.
- Mulkeen. A. (2005). *Teachers for Rural Schools: A challenge for Africa*, Addis Ababa.
- Murphy, M. (2007). *Incentive programs and labor turnover rate in hospital food service*. A thesis submitted to Graduate, Texas Woman 's University, USA.
- Negussie, Y. (2014). Motivation factors that affect teachers' work performance in secondary schools of Jijiga city, Somali Regional staff, Ethiopia (Master dissertation, Haramaya University, Ethiopia). Retrieved from [www.google.com](http://www.google.com), on 15<sup>th</sup>/10/2018.
- Odden, A . (2002). *Paying teachers for what they know and do: New and smarter*. OECD.
- Ogunlade & Ayinla (2012). *Monrtary Reward and Teachers' Performance in selected Public Secondary Schools in Kano state*. Journal of Education and Practice. 7(8), 2222-1735.
- Okumbe, (2001). *Educational management theory and practice*. Nairobi University press, Nairobi, Kenya.
- Rahim, M. A., & Daud, W. N. W. (2013). *Rewards and Motivation among Administrators of University SultanZainal Abidin (UniSZA): An Empirical Study*. International Journal of Business and Society, 14 (2),265-286.
- Rizwan, Q.D., (2010). Impact of Reward and Recognition on Job Satisfaction and Motivation: *An Empirical Study of Pakistan*. International Journal of Business Management. Vol.5, no.2.

- Roberts, L. (2008). *The relationship between rewards, recognition and motivation at an insurance company in the Western Cape*. New York: Routledge Publishers.
- Salman, K., (2010). *Impact of Motivation on Organizational Effectiveness*. *Business Management and Strategy*. ISSN 2157-6068 2012, Vol 3, No 1 Macro think Institute.
- Scafidi, B., Sjoquist, D.L. & Stinebrickner, T.R. (2007). *Race, poverty and teacher mobility*. *Economics of Education Review* 26(2) 145-159.
- Sekaran, U., & Bougie, R. (2010). *Research Method for Business. A Skills Building Approach*. 5th edition, UK, John Wiley and Son.
- SESEMAT, (2015). *Teaching Guidelines for Science and mathematics Teachers in Secondary Schools*. Ministry of Education Science Technology and Sports. Report, Kampala, Uganda.
- Shann, M. (1998). *Professional commitment and satisfaction among teachers in urban middle schools*. *The Journal of Educational Research*, 92(2), 67-75.
- Shen, Q.P. (1997), "Application of value management in mainland China: recent development and future prospects", Value World, SAVE International, Dayton, OH.
- Snelgar, R.J., Renard, M., & Venter, D. (2013). *An empirical study of the reward preferences of South African employees*. *SA Journal of Human Resource Management*, 11(1), 84-97.  
<http://dx.doi.org/10.4102/sajhrm.v11i1.351>
- Stahl et al, G. (2012). *Six principles of effective global talent management*. *Sloan Management Review*, 53 (2), 1-38.

- Teachers in Ghana: Insights into Becoming a Teacher*” Forthcoming in
- The Government of Uganda (2008). *The operation of the Public Service Act*, Kampala.
- Towse JN, Hitch GJ, Hutton U (2002) *On the nature of the relationship between processing activity and item retention in children*. *J Exp Child Psychol* 82:156-184.
- Uganda Government, (1992). *The White Paper: Education for National Integration and Development*. Kampala: Ministry of Education and Sports.
- UNEB (2010), *Dissemination Report on Performance of Students in U.C.E*. Ministry of Education & Sports, Kampala.
- Uzonna, U.R. (2013). *Impact of motivation on employee’s performance: A case study of Credit West Bank Cyprus*. *Journal of Economics and International Finance* 5(5), 199-211
- Vegas & Umansky, (2005): “*A literature Review of Teacher Quality and Incentives: Theory and Evidence*”. In *Incentives to Improve Teaching: Lessons from Latin America*, ed. By E. Vegas. Washington, D.C: World Bank, 21-26.
- Vroom, V (1964). *Work and motivation*. In H.J Chruden Sheman Jr. (pp. 272)
- Wayne, C.F. (2006). *Managing Human Resources: Productivity, Quality of Life, Profits*. McGraw-Hill Irwin.
- Whitaker, P. (2009). *What non- financial rewards are successful motivators?* *Strategic HR review*, 9(1).
- Yamoah, E.E. (2013). *Exploratory study on Reward and Job performance of Teachers of public schools in Ghana*, *Public policy and Administration Research*, 3(7), 27-26.



4. Highest education level attained

Qualification	1.Advanced level	2.Diploma	3.Degree	4.PostGraduate	5.Anyother (Please specify)
---------------	---------------------	-----------	----------	----------------	-----------------------------------

5. How long have you been employed in this school?

Period	1 year and less	1-2 years	3-4 years	5-6 years	Above 6 years
Tick					

6. Teaching subjects .....

**SECTION B: THE EFFECT OF CAREER DEVELOPMENT ON SCIENCE TEACHERS  
JOB PERFORMANCE IN SECONDARY SCHOOLS IN ADJUMANI DISTRICT.**

6. For each of the following statements, please indicate (by ticking) the most appropriate answer. The following are the scale: *Strongly Agree (SA)*, *Agree (A)*, *Not sure (NS)*, *Disagree (D)* and *Strongly disagree (SD)*.

No	Career Development	Responses				
		SD	D	NS	A	SA
1	Further training of science teachers encourages superior performance					
2	Career development through Seminars encourage employee retention					
3	My school organizes workshops to enhance science teachers performing abilities					
4	Organizing seminars to re-orient science teachers on new pedagogical skills motivates science teachers job performance					
5	My school allows upgrading of staff to improve performance					
6	Many science teachers perform better because of career development					
7	Career development does improve one's performance					
8	The qualification level of the employees determines the science teachers' performance					

9. In your opinion, give three reasons why career development may not improve science teachers' performance.

- (a).....
- (b).....
- (c).....

**SECTIONC: THE RELATIONSHIP BETWEEN WORKING ENVIRONMENT AND THE SCIENCE TEACHERS' JOB PERFORMANCE IN SECONDARY SCHOOLS IN ADJUMANI DISTRICT.**

7. For each of the following statements please indicate (by ticking) the appropriate responses from the following scale: *Strongly Agree (SA)*, *Agree (A)*, *Not sure (NS)*, *Disagree (D)* and *Strongly disagree (SD)*.

No	Working Environment	Responses				
		SD	D	NS	A	SA
1	My school has Library space to display instruction materials which aids science teacher's job performance					
2	Laboratories and workshops for Practical skills allow effective teaching					
3	Adequate sitting facilities in class rooms helps science teachers to deliver lessons effectively					
4	Compound provides conducive atmosphere for the science teachers job in schools					
5	Providing walled and secured environment permits effective learning					
6	Our classes are spacious to allow conducive teaching and learning					
7	My school provided housing so I can perform better					
8	Where I live with my family is very good therefore, I perform better					
9	My house makes me academic giant					

**SECTION D: THE EXTENT TO WHICH MONETARY REWARDS AFFECT THE MORALE OF SCIENCE TEACHERS TO PERFORM IN SECONDARY SCHOOLS IN ADJUMANI DISTRICT**

8.For each of the following statements about performance of science teachers, please indicate (by ticking) the most suitable responses using the following scale: *Strongly Agree (SA)*, *Agree (A)*, *Not Sure (NS)*, *Disagree (D)*, and *Strongly disagree (SD)*

No	Salary and Allowances	Responses				
		SA	A	NS	D	SD
1	My salary is paid in time					
2	I feel motivated to work mainly because of my high salary					
3	Allowances and Bonuses make me perform better					
4	Transport, extra duty allowance helps me to build loyalty and work excellence					
5	I am satisfied with the bonus accorded to me					
6	Extra loads are paid for in this school					
7	I am paid for being the best teacher of the year					
8	My salary is commensurate to the work I do					
9	Salaries should be paid according to ones' qualification					
10	Transport and housing allowance are paid to science teachers					



**SECTION E: SCIENCE TEACHER JOB PERFORMANCE IN SECONDARY SCHOOLS IN ADJUMANI DISTRICT.**

For each of the following statements, please indicate by (ticking) the most appropriate answer. The following are the scale: *SA= Strongly Agree, A=Agree, NS=Not Sure, D=Disagree and SD=Strongly Disagree.*

No.	Science teacher job performance	Responses				
		SD	D	NS	A	SA
1	I possess adequate problem-solving skills					
2	I accurately analyze situations and determine the correct course of action					
3	I display mastery of work tasks					
4	I make good decision in presence of new challenges					
5	I pay attention to detail and avoid making mistakes					
6	I use resources in cost effective manner while performing my tasks					
7	I produce a high quality of standard of work					
8	I meet deadline under any circumstances					
9	I am willing to help students learn					
10	I do my job effectively without complaining					
11	My level of enthusiasm for teaching is high					
12	I strive to be consistently accurate in all aspect of my work					
13	I conduct science practical regularly to my students					
14	I always update my lesson notes, schemes of work and lesson plans					
15	I conduct regular assessment of the learners in the subjects I teach					

**Source:** *Adopted from Montowidlo and Van Scotter's (1994) 16 item scale of citizenship performance and modified by the researcher.*

## **APPENDIX II: KEY INFORMANT INTERVIEW GUIDE**

Dear Respondent,

I am a student of Kyambogo University pursuing a study. You are among the selected participants in this study by providing relevant information which will purely be for academic purposes. The information given will be treated with utmost confidentiality. I therefore request you to spare some time and help provide information. Your response is highly appreciated.

1. In your opinion do you think career development helps science teacher job performance in Secondary Schools in Adjumani district to be better? Why?
2. Do you think the working conditions affect the job performance of science teachers in Secondary Schools in Adjumani district? How?
3. In your opinion do you think monetary rewards can improve science teacher's performance? Why?
4. What do you think can be done to improve science teacher's job performance in secondary schools of Adjumani district?

*Thanks for your cooperation*

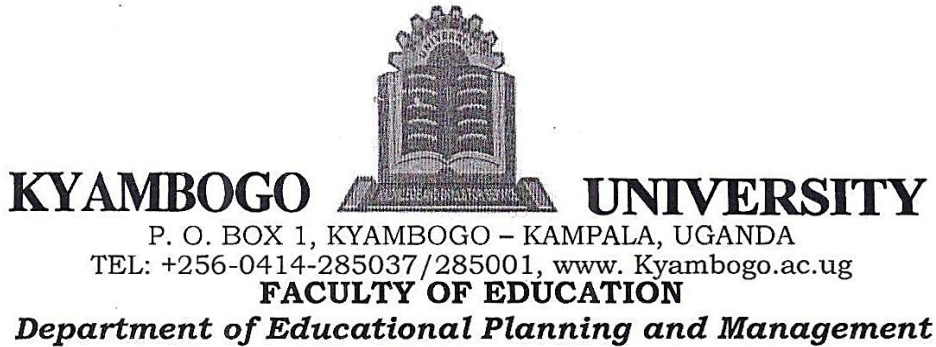
END

**APPENDIX III: SAMPLE SIZE DETERMINATION TABLE**

<b>N</b>	<b>S</b>	<b>N</b>	<b>S</b>	<b>N</b>	<b>S</b>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Source Kieicie & Morgan, 1970

APPENDIX IV: INTRODUCTORY LETTER



Date: 29<sup>th</sup> June 2019

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam

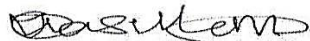
**RE: OBULEJO SAVIOUR - 17/U/14555/GMED/PE**

This is to certify that Obulejo Saviour is a student in our department pursuing a Master of Education in Policy Planning and Management. He is carrying out research as one of the requirements of the course. He requires data and any other information on the topic titled:

**“Rewards and job performance of Science Teachers in Adjuman  
District, Uganda”**

Any assistance accorded to him is highly welcome. He is strictly under instructions to use the data and any other information gathered for research purposes only.

Thank you.



Dr. George Wilson Kasule

**HEAD OF DEPARTMENT, EDUCATIONAL PLANNING & MANAGEMENT**