

**AN ASSESSMENT OF THE PERFORMANCE OF PRODUCTION UNITS IN
SCHOOLS: THE CASE OF SELECTED SECONDARY SCHOOLS IN LUSAKA
DISTRICT.**

BY

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**A Dissertation Submitted to the University of Zambia in Collaboration with Zimbabwe
Open University in Partial Fulfilment of the Requirements for the award of the Degree of
Master Of Education In Educational Management.**

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DECLARATION

I, **Chisha Priscillar**, do hereby declare that this dissertation on an assessment of the performance of production units in schools in selected secondary schools in Lusaka District is entirely my own work and has not previously been presented by any person for a degree to this university or any other higher institution for any similar academic award.

Signed: Date

APPROVAL

This dissertation by Chisha Priscillar, has been approved as partial fulfilment of the requirements for the award of the degree of Master of Education in Educational Management by the University of Zambia in collaboration with Zimbabwe Open University.

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ABSTRACT

This study looked at the assessment of the performance of Production Units in selected secondary schools in Lusaka District. The study was guided by four objectives and that were related to the research questions. These were: To establish how Production Units were managed in selected schools in Lusaka District; To assess the performance of Production Units in Schools; To determine the challenges that could have been affecting the performance of Production Units in schools; and to determine the necessary measures to enhance the management of the Production Units in Schools. Under theoretical framework, the study was influenced by two theories and which were: Human Capital Theory and Systems Theory by Schultz (1961) and Ludwing Von Bertalanffy (1973) respectively. Methodologically, the study adopted a qualitative research paradigm. This study was descriptive in nature. It focused on thematic presentations guided by the objectives of the study. In terms of the management of production units, it was clear that schools had established structures guide the management of production units. Decisions were also made democratically on how the units should run in each school sampled in the study. On the question of performance of the production units, the findings of the study indicated that these units were performing well despite some challenges. The participants sampled mentioned that harvests have been made in gardens, maize fields, under fish farming, goat project and piggery as well as that some good sales have been realized from these produce. The study revealed that the concept of production units is still new and there was room for schools to even do better than what was prevailing on the ground. But actual figures like expenditure, income, and profits were not available. However, any monies made were deposited in the school accounts for accountability purposes. Also, some challenges were identified. These included: shortage of land, poor planning in terms of timing of activities to do with production units, lack of proper training, lack of transport and market, and inadequate financial resources for expanding production units' activities. Thus, on necessary measures to enhance the performance of productions, there was an urgent need to address these challenges. Arising from these findings, the following recommendations were made: workers production units should be trained. Schools to develop marketing strategies through working with supermarkets, hotels and lodges. Also, land to be secured through the help of Ministry of General Education and Ministry of Lands.. Partnerships with relevant stakeholders like supermarkets, Banks, and NGOs focusing on agriculture, and private companies were key addressing challenges faced.

DEDICATION

I dedicate this piece of writing to my late husband, Paul Bwalya- Mpange. He always encouraged me to go further in my education and gave me all the support; to my children, Deborah, Favour and Hope, for encouraging me always.

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ABBREVIATIONS

AIP	American Institute of Physics
CDC	Curriculum Development Centre
FAO	Food and Agricultural Organization
GRZ	Government of the Republic of Zambia
HOD	Head of Department
KShs	Kenyan Shillings
MLA	Ministry of Legal Affairs
MOE	Ministry of Education
NGOs	Non- Governmental Organizations
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNIP	United National Independence Party
UNZA	University of Zambia
ZEPH	Zambia Educational Publishing House
ZOU	Zimbabwe Open University

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

This chapter addresses several aspects of the introduction to the study. These include the background of the study, statement of the problem, purpose of the study, objectives of the study which are related to the research questions, significance of the study, limitations, theoretical and conceptual frameworks.

1.1 Background of the Study

The provision of education is an exercise that requires huge resources (Carmody, 2009; MOE, 1996). No single stakeholder may manage to sustainably provide the resources needed to provide education. This calls for the need for numerous stakeholders to come on board. These are the government, non- governmental organizations, donors, private sector, schools, households, and individuals. Therefore, the government alone cannot manage to finance education. Others sectors of the economy and players have been invited to come on board. Schools have been urged not to just wait for government funding but also to venture into productive activities.

Today, schools globally have been taking an active step to make themselves self- reliant in terms of financial resources through the introduction of Production Units (Food and Agriculture Organization, 2010). In fact, this is an old concept. In some countries around the world it was implemented but later it disappeared. In 1981, the 38th Session of the International Conference on Education adopted the need for interaction between education and production work. This shows the importance of production units in schools. As early as 1989, UNESCO's International Symposium on Innovative Methods in Technical and Vocational Education held in Hamburg, called for the need to promote interest in production- oriented learning and teaching in schools (UNESCO, 1981). Due to the dynamic world we are living in, the need to re- introduce and revamp production units has been found to be a relevant and an urgent one. This is largely due to a number of benefits associated with these units such as income generating, food security, imparting of survival skills and research experience (FAO, 2010). Correspondingly, it has been stated that governments and international development partners are increasingly interested in school gardens and other productive activities

like fish farming and animal rearing as these activities have been key in science education, agricultural training, raising income levels, and better nutrition (FAO, 2010).

The concept of production units, however, it has been faced with a number of challenges too. In countries like Costa Rica, Botswana, Swaziland and Uganda, the introduction of production units has been faced with resistance especially from the parents as it has been perceived to be the ruralization of the curriculum (FAO, 2010). However, this has not stopped governments in these countries to promote the idea of production units. In fact, it has been argued that in a number of countries where these units were resisted there has been a change in response necessitated by the realization that production units are key in promoting food security for school feeding programmes, more secure livelihoods through income generation, and better nutrition. Like in the case of the United States of America, it has been learnt that the White House food garden in Washington D.C. started by children from Bancroft Elementary School is expected to provide food for the President and the family as well as to educate children across the country the importance of health garden produce and through this to educate other families to promote gardening at home (Burros, 2009). Countries like China have also combined teaching with production work in schools. It has been observed that what started as simple work- study school programmes in China today consist of factories, farms, construction companies, and a wide range of service businesses (Singh, 1998).

Zambia has joined other countries in fostering the need to combine learning with production work in schools through the re- introduction of Production Units. In independent Zambia, Production Units were firstly introduced in 1975 through President Kaunda's proclamation that all institutions of learning should have production units (Bwalya, 1983; Hoppers, 1989). However, during the colonial period, the concept of production unit in schools was still emphasized by the colonial administration. It should be noted that such pronouncements were made in the colonial government by the colonial administrators. For instance, in 1922, G. C. Latham, an educational officer at that time who later became Director of African Education, indicated that:

... when education is just bookish it becomes worse than useless for an African child as the mind of an African can only be awakened through intelligent industry (Snelson, 1974).

In colonial Zambia, nothing has been written on the success of production units in schools. In independent Zambia, however, after 1975, the Production Units programme started as a great success. It has been stated that profits from these units became a valuable source of income that helped to purchase school stationery, carry out repair and maintenance works, and catering for sundries like transport (Hoppers, 1989 and Kelly, 1991).

Today, it is believed that Production Units can venture into numerous lucrative activities so as to support the financial needs of the school and possibly make schools to be self- reliant (Jere, 2019). This is the stance the Zambian government has taken through the Ministry of General Education. Subsequently, schools around the country have been seen investing heavily in activities such as fish farming; vegetable gardens; chicken, pig and goat rearing; carpentry and metal works. However, it is also important for the country to pick some lessons from the failure of Production Units activities in the 1980s. Some of the key factors that relate to the failure of these units were that there was need to integrate the production activities into the school curriculum more harmoniously in terms of time allocation and lack of clear definition of the needed inputs to make production units more viable worsened things (Hoppers, 1989 and Kelly, 1991). Also, it was observed that the aggregate value of goods and services that schools were producing was low and of less financial significance (Hoppers, 1989). Therefore, any attempts aiming to make Production units a success in raising schools revenue and possibly improving nutritional standards must address these concerns adequately.

1.2 Statement of the Problem

A number of schools in Lusaka District and many other Districts around the country in Zambia have revamped their Production Units. This has been in line with the ministerial directive that schools should re- introduce production units so as to be self- reliant especially when it comes to the need to mobilize financial resources necessary to provide education in the respective schools (Jere, 2019). Also, Production Units serves numerous benefits apart from income generation such as ensuring food security, imparting of entrepreneurial skills in learners, health diet, and secure livelihood (FAO, 2010). It should be noted that Production Units where a key aspect of the provision of education especially in the 1970s and 1980s (Hoppers, 1989 and Kelly, 1999). But suddenly, these disappeared in the 1990s. As Achola and Kaluba (1989) put it, the production units introduced in schools in 1975 taught useful skills although they had little success in linking theory with practice, building positive

values for manual work, imparting management and marketing skills in learners or producing significant income for schools. Arising from this discussion, it was important to assess the performance of the Production Units in schools so as to ensure that the re- introduction of these units is sustainably supported by schools and avoid their disappearance in the near future. There was need to establish how school managers were running these Production Units, the opportunities and challenges that were present, and how schools were ensuring that these units were ran sustainably and at the same time acting as a greater source of incoming necessary to support the provision of quality education.

1.3 Purpose of the Study

Arising from the background of the study and the statement of the problem, the study was aimed at assessing the performance of Production Units in selected schools in Lusaka District.

1.4 Objectives of the Study

In line with the statement of the problem and purpose of the study, the following were the objectives of this study:

- i. To establish how the Production Units are managed in selected schools in Lusaka District.
- ii. To assess the performance of the Production Units in schools.
- iii. To determine the challenges that may be affecting the performance of Production Units in schools.
- iv. To determine the measures necessary to enhance the management of the Production Units in schools.

1.5 Research Questions

The research questions of the study were four (04) and linked to the objectives of the study. These were as follows:

- i. How is the management of Production Units in schools?
- ii. How are Production Units performing in schools?
- iii. What are the challenges faced by the Production Units?
- iv. How can the management of Production Units be enhanced in schools?

1.6 Significance of the Study

The question of financing schools is one of the major challenges that governments worldwide are facing. Strategies centred on self- help ventures like Production Units are being encouraged in schools so as to make schools self- reliant in one way or another. Zambia has re- introduced Production Units in schools. However, very little or nothing is known about how these Units are performing in schools and the sustainability of the aforementioned units in schools. Therefore, it was hoped that this study would:

- i. Provide the much needed feedback to the policy makers on how Production Units are performing in the selected schools in Lusaka District.
- ii. The findings on the study will add to the body of knowledge on the performance of Production Units around Lusaka District.

1.7 Operational Definitions

The study had some key terminologies that were adopted specifically for this research. These were:

School: A government secondary school located in Lusaka District and with an active Production Unit section.

Performance of Production Units: The extent to which the Production Units are able to meet their set goals. It should be noted that Production Units have been re- introduced in an effort to make schools self- reliant. Therefore, to what extent are Production Units able to realize this goal.

Production: this is the real output of food or goods by learners, teachers, school leadership or support staff in any given production unit.

Production Units: The Section that handles production activities in schools associated with agriculture, fishing, wood and metal works. These are activities where goods and services of economic value are produced for income generation or to sustain the operation of the school.

School Managers: Head-teachers, Deputy Head-teachers, and others tasked to look at the operation of Production Units in Schools.

1.8 Theoretical Framework of the Study

This study was guided by two theories. These are the Human Capital Theory and the Systems Theory as it will be discussed below:

1.8.1 Human Capital Theory

The theory of human capital was put forward by Schultz (1961) and later developed by G.S. Baker in his work on economics of employer- provided training (Fugar, Ashiboe- Mensah, and Adinyira, 2013). This theory calls for the need to invest in human capital so as to increase productivity and profitability of a given venture. It states that when we invest in people they tend to be more productivity. Fugar, Ashiboe- Mensah, and Adinyira (2013) equally acknowledge that human capital is generally accepted as the most valuable asset of nations and organizations. Bohlander et al. (2001) defines human capital as knowledge, skills, and capabilities of individuals that have economic value to an organization and the individual too. In order for production units in schools to yield the expected results it is cardinal to see to it that the people in charge are appropriately trained and that they have the necessary skills to run these units. These should have adequate knowledge of agriculture, marketing and business management among many other skills. To this end, teachers with agricultural background and experience should be targeted to support the operations of Production Units in schools. Head-teachers and other interested stakeholders in the communities should take an active role in supporting the operations of these production units. Pupils in agricultural science classes should be taken as serious stakeholders especially in terms of the provision of cheap labour. Workshops and other forms of training should be considered by school managements so as to enhance the knowledge and skills of those running production units and as a way of promoting greater yields from these units as well as profitability. Similarly, Bassi and McMurrer (2006) argues that the human capital theory has been a strong theory in explaining the need to invest in human capital both for the individual and the firm.

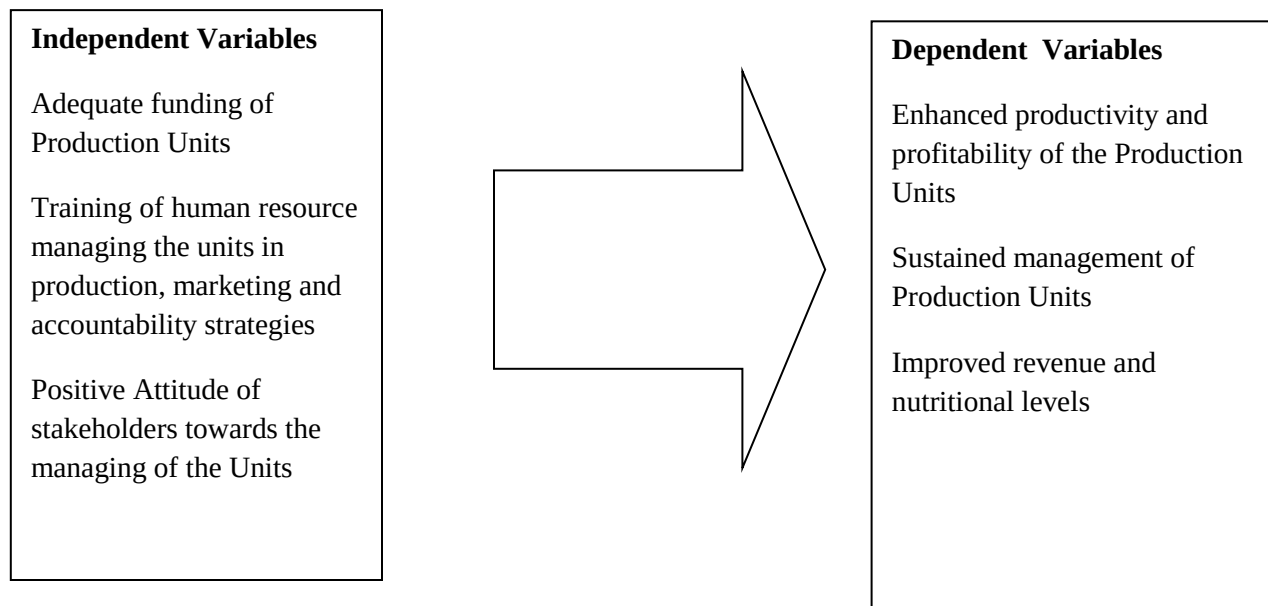
1.8.2 Systems Theory

The theory is the work of Ludwing Von Bertalanffy (1973) and it states that the organizational management systems consist of many internal subsystems that need to be continually connected with each other for efficiency and effectiveness (Cornell and Jude, 2015). This interdependence is what maximizes productivity as no unit operates in a vacuum. This theory argues that any unit in an organization is part of the larger organization and that all units operate as a system. Then there is need for these units to co-exist if they are to produce great results and operate proficiently. Production Units in schools, therefore, are part of the main school organization. For instance, for production units to run effectively and profitability there is need for proper and timely support from head-teachers and the administration in general. This is support especially in terms of finances, materials and human resource. Without this support, it will be difficult for production units to attain their goals.

1.9 Conceptual Framework

The conceptual framework in the study is made up of the independent and dependent variables that explain the relationship of different factors at play in enhancing the operation of production units in schools. The diagrammatical presentation of the Conceptual framework of the study was as shown below in Figure 1:

Figure 1: Diagrammatical presentation of the Conceptual Framework



As shown diagrammatically above, therefore, it can be safely argued that if production units are well supported in schools this would help to greatly meet the goals or objectives as to why these units were re- introduced in schools across the country. In order for the production units to meet the goals as to why they were re- introduced in schools, it is imperative that schools should focus on: Adequate funding of production units; training of human resource managing the production units in schools; developing marketing and accountability strategies or frameworks; promoting positive attitude of stakeholders towards the managing of the Units. Through such efforts, it should be noted that this will enhance the operation of production units in schools in a number of ways. These include: Enhanced productivity and profitability of the production units; sustained management of production units; and improved revenue and nutritional levels in schools across the country.

1.9 Limitations of the Study

The study adopted a qualitative approach and was descriptive in nature. It focused on a small population and only two secondary schools were sampled in Lusaka District. Therefore, it is difficult to generalize the findings. However, the findings are still useful as they will provide us with the reality on the ground especially in the schools that were sampled. Also, the researcher did not spend much time in the field when collecting data as the time for the research was limited. There was need to work within the time that was available. This, therefore, will affect the quality of the data in terms of the observations and lived experience of the researcher in relation to the current research on the assessment of the management of production units in schools.

1.10 The Summary of the Chapter

This chapter presented the introduction to the study. It looked at the background of the study. This focused on the research problem, purpose of the study, objectives of the study that were related to the research questions, significance of the study, theoretical and conceptual frameworks. It also provided the operational definitions and limitations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the literature that has been reviewed. The literature will be drawn from theses, peer-reviewed journal and research articles, reports, and books. It should be noted that most of the literature is historical in nature due to the kind of topic under investigation. Very little of present studies especially on Zambia are available as the production units died in schools a few decades after their introduction. Therefore, most of the literature reviewed in the study is historical in nature. Also, key concepts connected to this study will be discussed and reviewed here. This literature is in line with the objectives under study which are related to the research questions and these are: To establish how the Production Units are managed in selected schools in Lusaka District; to assess the performance of the Production Units in schools; to determine the challenges that may be affecting the performance of Production Units in schools; to determine the measures necessary to enhance the management of the Production Units in schools.

2.1 The Concept of Production Units in Schools and Aims

Several terminologies have emerged over time to mean production units in schools and in different localities across the globe. Therefore, different countries and institutions have their own terminologies and in accordance with their areas of specialization and interest when it comes to the question of what production units must focus on in their institutions. In some countries, for instance, the word garden is used (FAO, 2010). For some scholars and institutions, the term school enterprises' has been adopted (Singh, 1998). This is mainly because in such countries the focus has been on crops and fruits unlike other areas of production units such as fish farming, goat rearing or chicken runs. In Zambia, the term production unit has been adopted as the focus is wide; crops, fruits, and animals as well as carpentry and joinery. The term production unit refers to the entire engagement of education institutions in Zambia some collective productive activities (Bwalya, 1983).

American Institute of Physics (AIP) Conference Proceedings 1887 (2017) acknowledges the value of skilled labour in industry through production-based school curriculum approach in high schools. It

has been stated that this is key in preparing mid- level skilled labour to work in the industry and able to create self- employment opportunities. According to AIP Conference Proceedings 1887 (2017), this is a kind of curriculum that meets the needs of industries and individuals through preparing the learners to master the competence in accordance with the skills programme of their choice and at the same time using producing as a medium of learning. It will enable learners to have an understanding of the real world learning and not just simulations as the case has being under traditional learning in schools over the years. Therefore, it can be safely argued that the re- introduction of production units in schools in Zambia has given learners an opportunity to be introduced to the real working environment and to amass direct skills for industry and individual self- employment opportunities. Schools should not leave out the learners in the management of production units. Then the Curriculum Development Centre (CDC) with support from numerous well-meaning stakeholders should also help to come up with a standardized programme on how learners can be made part of the production units in Zambia as well as how these units can be made more viable at school level.

Production units serve numerous aims (Bwalya, 1983, FAO, 2010, and Singh, 1998). These also differ when one is to make a country- to-country analysis across the globe. According to some literature, the main orientation of production units has been food for consumption, income generation, improve nutrition levels at school and educational performance through encouraging attendance (FAO, 2010). Furthermore, it has been stated that productions units are important as they bring schools closer to the real life experiences in the world of work and erases the traditional approach that one's life is divided into a span of time just to study and another just to work (Singh, 1998). In the case of Zambia, Bwalya (1983) reveals that the aim of production units in Zambia according to the presidential decree in 1975 was to make the country self- sufficient in food production. The government was looking at production units as an opportunity to increase food production and alleviate hunger levels as well as other diseases associated with high hunger levels around the country. According to the Ministry of Education (1976), pointing out the aims of production units in the educational reforms of 1976, it was clearly outlined that the aims of production units in Zambia should be guided by the following principles and objectives:

- a) That manual work is as socially valuable and acceptable as intellectual work;
- b) That education and production work are necessary for personal and national development;

- c) To produce a cash surplus from these activities which can be used to improve and expand educational facilities; and
- d) To reduce the public cost of educational provision through self- help by institutions themselves.

2.3 Development and Management of Production Units in Schools across the Globe and the Case of Zambia

Pratama and Triyono (2018) recognize the importance and need to develop production units in schools. It has been stated that the development of production units in schools will greatly help to promote school entrepreneurship. Also, Pratama and Triyono (2018) call for the need to develop a model that could support the running of production units in schools. According to them, such a model must be developed in a systematic manner and tested so as to guarantee that it will be able to help schools meet the goals set under the production units.

Historically, it has been observed that Production Units in schools have had different priorities and these have been evolving over time (FAO, 1990). These differences have been necessitated by the fact that each government has unique educational policies and priorities with the passage of time. The concept of Production Units began to acquire a global outlook in the early 1980s. It has been observed that the 38th Session of the International Conference on Education organized by UNESCO that was held in 1981 called for the need for schools to adopt Recommendation No. 37 calling for interaction between education and productive work (Singh, 1998). The idea was to ensure that member states adopted strategies that were going to relate schools more closely to the world of work. Thus, it can be said that this was one of the early attempts at global level to promote the introduction of Production Units in schools.

In the case of China, it has been observed that the work- study programmes in Chinese schools have been making a transition to a variety of school enterprises which now serve vocational needs of the learners and providing much finance to the schools for the past 40 years now (Zachariah and Hoffman, 1984). These programmes have grown in China and transformed into now farms, factories and wide range businesses. Like in the case of Jinsong Vocational Senior Middle School in Beijing, it runs a profit- based school restaurant where pupils are trained for 3 years in theory and practice

until they are in their third year. They offer their services in the restaurant, making huge profits to support school finances due to poor government funding and school leavers can work in any restaurant after completion of school due to the quality of training they get. Similarly, school enterprises at Guanzhou School No.6 in China run printing factories and chemical factories that it even exports its products to the Republic of Korea. In 1994 alone, for example, it has been mentioned that the profits from the school totaled 1,000,000 Yuan and provided 50 % of the school operating funds and which was equal to the amount provided by the government to run schools. This money, it has been indicated, was used for various activities such as staff benefits, salaries, facility repairs and upgrades, educational equipment, and reinvestment in the enterprise. (Zachariah and Hoffman, 1984).

At local level, increased food production around the country in Zambia has been emphasized since independence in 1964. Sakayombo (2014) acknowledges that the UNIP government promoted the slogan of ‘go back to the land’ in an effort to ensure food security and affordability at the time the country was hit by rural- urban migrations. At school level, the syllabus was designed in such a manner that it put into consideration the promotion of agricultural science and farmers’ clubs in schools. Today, Sakayombo (2014) calls for the need to promote indigenous knowledge in agricultural science. Therefore, even if the work by Sakayombo (2014) largely deals with the need to promote indigenous knowledge in agricultural science, a lot can be learnt from this concept so as to promote the growth of production units in schools especially in the areas of gardening and agriculture in general. Indigenous knowledge in agriculture has been defined as local knowledge that is related to a given culture and upon which that culture make key decisions in the area of agricultural development. In citing Warren (1991), Sakayombo (2014) argues that the promotion of indigenous knowledge does not imply adopting it at the expense of abandoning modernity, rather, it means promoting conservation strategies and sustainable use of land resources inherent in the nature of indigenous knowledge in agricultural science.

In Zambia, historically, great lessons can be picked on the birth and goals of production units in schools from the UNIP National Policies for the Decade, 1985- 1995 that looked at the aims and objectives of the Third Phase of the UNIP Part programme (Achola, 1990).

Also, however, it should be noted that administrators in the colonial government in Zambia, called Northern Rhodesia at that time, equally called for the need to promote production units. Like it was put by Latham G C 1922 in Snelson (1974), and who later became the Director of African Education in Northern Rhodesia, a bookish curriculum cannot help an African child to be productive and there is need to ensure that an African child is engaged in intelligent industry. To this effect, the first attempt to create experimental gardens by the colonial government was made in 1922 focusing largely on cash crops, cotton and tobacco (Elliott and Perrault, n.d). Thus, UNIP policies can be said to be a continuation of such thoughts.

In the case of UNIP, these policies can be traced from the 1975 declaration on the need to introduce production units. It has been recorded that on 20th July 1975, Dr. Kenneth Kaunda of the Republic of Zambia and in his capacity as President issued a decree directing all educational institutions at different levels of learning to introduce production units (Bwalya, 1983). This policy document for 1985 – 1995 reveals that the introduction of production units in schools and subsequent combining of study with productive work is to ensure that young people learn the necessary skills that will help them after leaving their studies. In summary, it has been stated that the essence of production units in Zambia, when the president issued a decree in 1975, was to promote learners respect and love for manual work and make educational institutions self- sufficient in terms of food provisions (Achola, 1990).

Bwalya (1983) reveals that before production units were made to become compulsory in all educational institutions, schools had what were called Young Farmers Club (YFCs). However, it should be noted that these did not exist compulsorily in all schools. Also, these clubs were largely voluntary, and to larger extent, the clubs were essentially extra- curricular and mostly focusing on just agriculture. But according to the publication in the Zambia Daily Mail (1975), cited in Bwalya (1983), the Presidential directive on the creation of production units in schools decreed that:

With immediate effect, all villages, primary and secondary schools, colleges and the University of Zambia, will become food production units in a bid to make the country self- sufficient in food.

Kelly (1991) provides key insights on the performance and challenges associated with the running of production units in Zambia in 1980s. He argues that production units received opposition from the

parents as the government first proposed that the educational and economic objectives in schools should be of equal importance. Parents on the other hand held the view that education objectives should come first. Then production units lacked sufficient time on the time table. This made the financial returns to be very insignificant (Kelly, 1991). Therefore, the re- introduction of production units in schools today has a lot to pick in terms of lessons from the developments in the 1980s. This piece of study is valuable to the present work in that it reveals some of the challenges that could have contributed to the collapse of production units in schools in the 1980s. Thus, there is need to avoid repeating these mistakes.

2.4 International and Local Perspectives on the Performance of Production Units in Schools

The question of production units in schools is a global phenomenon. It is a practice that several countries across the globe are promoting in schools. This is largely due to the numerous benefits associated with production units in schools (Achola, 1990; FAO, 2010).

A report by FAO (2010) is important to this study. It outlines several benefits associated with running production units in schools. The report highlights that this helps to promote good diets in school, it is a way of sensitizing learners on nutrition education, development of livelihood skills thereby contributing to national and food security. This work acknowledges that production units are a global development as many countries have adopted this concept across the world. This study observes that there are challenges in the management of production units related to lack of expertise and training in production units' management; issues of curriculum integration, and how to motivate hardworking staff (FAO, 2010). This report will add value to this study in that it is key when it comes to determining the importance of production units in schools in Zambia. It will also help in terms of comparative analysis on the question of challenges affecting the management of production units in schools.

According to Nyamwega (2016), schools in Kenya raise a lot of money from production unit activities. In a study that was carried in 11 schools in Nairobi County, it was revealed that schools make in the range of KShs 680, 000 to KShs 6,000,000 annually from income generating activities. These funds have been key in raising extra financial resources to meet the financing of education and unlike waiting for government funding.

Uganda has been performing very well in the area of production units in schools. It has been noted that agriculture is part of the curriculum in that country and schools have scored a number of successes in this area. These include: Acquisition of agricultural skills for the future; selling of surplus produce to the community; reduction of cost of school meals; improvement in teachers and pupils nutrition; and pupils get practicing certificates in agriculture (FAO, 2010).

In Tanzania, Maliyamkono (1980) looked at production units in that country. His studies found that there is no relationship between academic performance and production unit in his study on the two variables. He, therefore, concluded that this is obviously due to the fact that pupil performance is a factor of many things and cannot be interpreted only in terms of the introduction of production units in schools.

2.5 Challenges affecting Production Units in Schools

The running of production units has been faced with challenges from the first time an attempt was made to introduce these units in the schools around 1970s. Bwalya (1983) studied production units in some Zambian schools and colleges in the 1980s. The study attempted to document how production units in selected schools and colleges were organized and the challenges that they were facing. This study involved 154 participants drawn from colleges, primary and secondary schools in Luapula and Copperbelt provinces. On the question involving the challenges affecting production units, it was revealed that key challenges included: key party officials and influential leaders in the community are not part of the production units; water was a challenge too; some institutions lacked initial capital and theft was common in all schools. However, even if this study was done a long time ago, it is useful to the current work. It will help in terms of analysis purposes and comparison. It will enlighten the researcher on whether these challenges are still prevalent today in schools running production units. Also, it should be noted that while the previous study was largely quantitative, the current study is qualitative.

Mwamba (2017) evaluated head-teachers' effectiveness in managing finances of Free Primary Education. Although this study was on Free Primary Education, it is paramount to the present study in that the way head-teachers handle finances in schools including funds raised from Production Units will determine the success of these units. However, the findings from this study revealed that head-teachers were the chief accountant in the school. Unfortunately, most of them showed lack of

proper training in management of funds. Most head- teachers were ineffective and lacked the basic accounting skills. There was lack of accountability and adherence to financial guidelines. These challenges, it should be noted, poses a very serious challenge on the management of Production Units in schools by teachers as chief accountants in schools. If not well addressed, similar challenges may come to impact negatively on the effective operation of production units in schools.

Waithera (2013) studied the challenges affecting the teaching and learning of agriculture in schools. The study came up with a number of challenges. Key among these included: people lacked interest in the subject as it involved dirty work, resources like school farms agricultural tools, and classrooms were inadequate. As teachers used agriculture as a means to punish students, learners had a negative attitude towards the subject too.

According to Omukoba and Ayodo (2011), the managing of production units in schools face numerous challenges. Among the key ones, these include: lack of sufficient funds to initiate production unit programmes; land limitation; lack of transparency and accountability; and, poor records or lack of qualified personnel.

Amos and Koda (2018) studied the contribution of income- based generating activities in quality education provision in Moshi in Tanzania. In terms of the challenges affecting production units in this locality, it was revealed that these include: lack of entrepreneurship skills was the main challenge that head-teachers were facing in managing these units.

Kira (2018) discussed some challenges affecting the call to industrializing secondary schools in Tanzania through scientific innovations. One of the challenges identified was the need to persuade the people to develop positive ideas in terms of industrializing schools. There is need to develop a positive attitude in headteachers, government officials, teachers, learners, parents and communities. Also, the physical infrastructures of the schools need to be supported in terms of space; supply of electricity; and water may be a limitation for the up scaling of projects. Again, school project management skills are required so that projects do not clash with school curricula activities.

Mavhungu (2004) studies the factors affecting the teaching of agricultural science in Limpopo province in South Africa. The study acknowledged that agricultural science was a very important subject and that there was need to improve the academic performance of the learners. The key

challenges identified and affecting the teaching of Agricultural Science in this study were: the teaching skills of the teachers were below par and this was attributed to lack of teaching materials and tools. Another challenge identified was poor foundational knowledge of the learners doing agricultural science. There was lack of exposure and visitations to institutions involved in matters related to agricultural science. The findings of this study are important to the present work in that production units also involve agricultural activities. Thus, the findings affecting agriculture science will help in establishing the challenges affecting the running of production units in schools.

Furthermore, on challenges affecting the operation of production units in some schools, Pratama and Triyono (2018) found that teachers attached to production units did not have adequate time to balance between teaching in the classroom and attending to production unit activities. Another challenge that was observed is that there were few teachers under production units that were loyal to the school management and production units. This, too, was impacting negatively on the effective operation of production units due to lack of cohesiveness between the administration and those tasked to run production units on behalf of management. Therefore, the findings of this study will help to compare with what is on the ground in schools today. This will enable the researcher to establish whether or not teacher support in the running of production units is a challenge in the schools sampled in the study.

2.6 Measures Necessary to Enhance the Performance of Production Units

Various measures on how the performance of production units can be enhanced have been suggested. Bwalya (1983) states that schools should utilize vocational skills in the curriculum to enhance production units; teachers with training and experience in production units should be tied to these units so as to boost productivity; schools should invest in more equipment and tools that can improve the performance of production units; and, market can be created by targeting pupils through reduced prices of the produce as pupils offer free labour in production units.

Nwamwega (2016) state that schools should use participatory approaches in running production units and any other income generating ventures. Through the incorporation of participatory planning and innovative technologies it is believed that schools may be able to overcome most of the challenges faced in implementation and management of production units in different parts of the

country. This recommendation is key in terms of influencing the operation of schools production units in Zambia so as to enhance the operation of the units in the country for higher productivity.

On measures to enhance the performance of production units in schools, Amos and Koda (2018) found that the creation of awareness and cooperation was among the key possible solution to the challenges affecting production units in schools.

Also, Pratama and Triyono (2018) indicate that relying on pupils as cheap labour and as a way of producing graduates who are competent in production units' activities could help to enhance the operation of these units in Zambia and add value to national development. They also add that the management of production units in schools must encompass all management functions and these include: planning, organizing, implementation, and supervision. This is key in promoting clarity and sharing the objectives as well as ownership of the activities under production units. This process must be consultative and participatory. According to Pratama and Trioyana (2018) this is key in addressing weaknesses of production units such as monotonous planning, overlap job descriptions, and lack of optimum supervision.

Waithera (2013) in a study conducted in Kenya on how to enhance agricultural activities in schools argued that there was need for schools to secure farm land so as to accommodate agricultural expansion. Good supply of water was a much needed requisite especially due to poor rainfall parts in many parts of Africa.

Studies by Caria and Andrade (2016) emphasizes the need for democratic management of school enterprises. The duo argue that participation in school activities should even involve communities that surrounds the schools by engaging them not only in execution of activities but also the decision-making process. According to Luck (2008) in Caria and Andrade (2016), democratic participative management concept presupposes the involvement of teacher, employees, parents and any other community representative who cares about the institution and improvement of pedagogical processes.

2.7 The Summary of the Chapter

This chapter presented the literature that was reviewed and relevant to the study on the assessment of the performance of production units in secondary schools in Lusaka District. The literature reviewed

focused on the objectives of the study and research questions. This was contextualized as literature from Zambia, Africa and global.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the research methodology that will be pursued in this study. It discusses the research paradigm, research design, population, sample size, sampling techniques, research tools, trustworthiness concerns, data analysis procedure, and ethics that were used to assess the performance of production units in schools.

3.1 Research Paradigm

In terms of the research paradigm, this study will adopt a qualitative research paradigm approach. Burns and Grove (2009) state that qualitative research is systematic and subjective in nature in that it aims to give a deeper understanding of a given situation or phenomena. Thus, qualitative approach has been chosen looking at the nature of the topic under study and the objectives of the researcher. It should be noted that this study is focusing on assessing the performance of production units in schools. Therefore, such a study can be best undertaken through a qualitative approach and by collecting and analysing the views of a small sample of people in charge of production units in schools. It should be noted that qualitative approach is good and appropriate when the researcher is interested in collecting detailed views of how an entity is functioning and in line with the goals for which it was established (Mason, 2002). This is why the researcher sought to adopt qualitative approach as a research paradigm.

3.2 Research Design

This study will use a qualitative descriptive design to carry out the research on an assessment of the performance of production units in schools. The researcher sought of using this design as the present study aims to collect data from a small group of the participants that will be selected largely through in-depth interviews. Walliman (2011) argue that qualitative descriptive research assess situations in order to establish the norm. Also, depending on the type of information sought, people can be interviewed, questionnaires distributed, and visual records made. Therefore, qualitative descriptive

research design offered the researcher an opportunity to collect as much information as possible in line with the objectives of the study.

3.3 Population of the Study

The term population in qualitative research has been defined as the total set of information sources that are potentially relevant to answering research questions (Rijnsoever, 2017). In terms of the population of this study, it should be noted that the study will only deal with three (03) schools. Then in each school, data will be collected from: Head-teachers, teachers, and support workers in charge of production units in schools. These were the key informants who helped to assess the performance of production units in the two schools that were selected for the study.

3.4 Sample of the Study

The study wishes to sample Eighteen (18) participants in charge of running production units from the three (03) schools that will be sampled in the study in Lusaka District. The researcher targets the following as participants in the study: Three (03) Head- teachers; Three (03) Heads of Departments; and Six (06) Science Teachers; and Six (06) General Workers. The targeted sample may also change depending on the existing situation in a given school. It should be noted that sometimes the production unit can be managed by a small group of teachers appointed by the head- teacher and at the same time reporting to the same head- teacher. Therefore, in such a case, the researcher endeavored to target such people in charge of running the production units.

3.5 Sampling Techniques

Numerous sampling techniques have been devised by different scholars and institutions (Bryman, 2008; Creswell, 2014). Non- probability techniques like purposive sampling are better when the choice of samples is based on the researcher's biasness to provide relevant information to the study under investigation (Benard, 2000; Bryman, 2008 and Creswell, 2014). This study will only make use of one sampling technique and that is the purposive sampling technique. It should be noted that purposively sampling is also referred to as judgmental, selective, subjective or a non- probability sampling technique. To this effect, the study used purposive sampling to select the schools and participants as the aim was to engage those schools that have already invested in production units.

Also, it is important to note that there are different types of purposive sampling. Patton (1990) outlines that there are different types of purposive sampling techniques that can be used in qualitative research and these include: Maximum variation sampling; homogenous sampling; typical case sampling; extreme case sampling; critical case sampling; total population sampling, and expert sampling. However, it is not the intentions of the researcher to explain all these types of purposive sampling. However, the interest of the researcher was in expert sampling as this is the technique that was adopted in this study. In explaining the meaning of expert sampling, it has been stated that this is a type of purposive sampling technique where the researcher focuses on individuals that have particular expertise (Lund Research, 2012).

3.6 Research Tools

Research tools play a key role in the process of data collection. They help to inform the researcher the experience out there in the field. Research tools also help the researcher to understand the topic under study both deeply and widely through interactions with the targeted participants on the ground. Various research tools have been designed. These include questionnaires, in-depth interview guides, focus group discussions, and observations. More importantly, it should be noted that every research tool comes with its own merits and demerits (Atieno, 2009; Creswell, 2014).

In this study, however, in-depth interview guides were used. These were selected because they greatly help to collect detailed information and especially where need arises in relation to the objectives of the study. In- depth interview guides in this study will utilize open- ended questions so as to adequately address the objectives of the study in terms of the responses that the participants will be providing (Allmark, Boote, Chambers, Clarke, McDonnell, Thompson, and Tod, 2009). Thus, in- depth interview guides were more appropriate for the present study (Mason, 2002).

The researcher opted to use in- depth interviews as they are rich in nature (Haradhan, 2018). They allow one as a research to collect as many details as possible from the relevant participants in the study thereby enrich the quality of research in terms of reliability and validity. The researcher ensured that the questions were open- ended so as to solicit for more answers and enrich the findings of the study. Also, questions were structured in such a manner that there was coherence between questions and that one question built on the previous one.

3.7 Trustworthiness and Credibility

Trustworthiness in research mainly rests on four important elements. These are truthfulness, consistency, applicability and neutrality of the data collected and analyzed (Billups, 2014; Ngozwana, 2018). Anney (2014) discusses credibility, member checking, transferability, dependability and confirmability among many other techniques as the key tools of trustworthiness in qualitative research. The researcher ensured that these elements were observed.

To realize credibility, the research gave adequate time to the data collection process so as to get the clear views of the participants and minimize researcher biasness, the research tools were reviewed by fellow researchers so as to address question of error and biasness as well as promote consistency (Hadi, 2016). Therefore, the researcher ensured that matters to do with the trustworthiness and credibility of the study were not left compromised.

In order to promote dependability, the researcher focused on the objectives of the study when collecting data from the participants. A detailed research methodology and systematically designed was followed. This will help other researchers in future to understand how the study was carried out and how the researcher arrived at the findings (Anney, 2014).

On the question of member checking, the researcher used an audio recorder to collect data from the participants. This helped to ensure that the actual statements from the targeted participants in the study are included in data analysis and interpretation of results. This is critical as it help to eliminate elements of biasness on the part of the researcher and enhances credibility.

Again, on confirmability, the researcher closely worked with the supervisor and peers so as to evaluate the accuracy of the research tools, the findings, interpretations and conclusions (Moon, Brewer, Januchowski- Hartley, Adams, and Blackman, 2016). These were based on the objectives of study, approved in-depth interview guides and supported by the responses of the participants.

To attain transferability, responses of the participants were compared so as to check the extent to which these responses agree or not in relation to the objectives of the study. It should be noted that transferability focuses on the extent to which the results of the research can be transferred to other contexts with other participants in qualitative research (Anney, 2014).

3.8 Data Analysis

In terms of data analysis, the study followed the thematic approach. Haradhan (2018) indicate that when analyzing qualitative data, it is actually a dynamic process that synthesizes emerging themes, identification of key ideas of meaning and material acquired from literature review and participants in the study. As this study was qualitative in nature, the researcher identified similar arguments from the emerging themes and analyzed them in the context of the topic under study as well as the objectives of the study.

3.9 Ethical Considerations

It is unacceptable for any research to ignore ethical considerations especially in the 21st century (Ngozwana, 2018). Therefore, ethical issues were taken into consideration in this study. Permission was sought from the University and District Education Offices to go ahead and conduct this research. The researcher ensured that all the rights of participants to take part in the study and to withdraw were protected including matters centering on anonymity, confidentiality, and consent (Bryman, 2006, Cohen et al., 2009; and Creswell, 2014). To this effect, the purpose of this study was shared with all relevant participants so that they could make a sound decision as to whether to participate in the study or not. Also, a copy of the consent sheet was shared with the potential participants before engaging them into in-depth interview. This gave one as a participant an opportunity to understand their right to participate or withdraw from the study.

In terms of anonymity, no participant was allowed to reveal their personal details and these were not be included in the report. On confidentiality, the findings of the study did not implicate any participant in any way nor or in the future (McMillan and Schumacher, 2006). Then no coercive force was used to engage participants. Participation was open and voluntarily. No money was given to the participants as a way of wooing them to participate in the study.

3.10 The Summary of the Chapter

This chapter presented the methodology of the study on the assessment of the performance of production units in secondary schools in Lusaka District. The study adopted a qualitative approach and was descriptive in nature. Key elements focusing on a descriptive study were taken into

consideration. These included the population of the study, sample size, sampling techniques, research instruments, trustworthiness issues, and ethical considerations.

CHAPTER FOUR

PRESENTATION OF THE FINDINGS

4.0 Introduction

This chapter presents the findings of the study on the assessment of the performance of production units in schools in selected secondary schools in Lusaka District. The presentation of the findings is based on the purpose of the study, objectives of the study that were related to the research questions, the methodology that was selected, and the responses of the participants in the study through the in-depth interview guides that were used. The objectives of the study were as follows:

- i. To establish how the Production Units are managed in selected schools in Lusaka District.
- ii. To assess the performance of the Production Units in Schools.
- iii. To determine the challenges that may be affecting the performance of Production Units in Schools.
- iv. To determine the measures necessary to enhance the management of the Production Units in Schools.

The main objective of the study was to assess the performance of production units in schools, the case of selected secondary schools in Lusaka District. The presentation of the data is based on various themes that have been identified in relation to the in- depth interview guides that were developed for data collection in the study. The themes of the study were related to the objectives of the study and the purpose of the study. These were as it has been outlined in the presentation below.

4.1 Management of Production Units in Schools

On the question of management of Production Units in schools which was the first objective of the study, the researcher wanted to establish how these were being managed in schools that were sampled in the study. A number of questions were asked from the participants in the study on the aforementioned subject matter. Therefore, numerous responses were provided on how Production Units were being managed in schools. The following were the responses from the participants.

4.1.1 Composition of the Membership of Production Units and Leadership

In attempting to establish what was the composition of the membership and leadership of the Production Units in schools, Participant One (P T 01) revealed that:

There are some teachers from agricultural science, the head teacher, the deputy head teacher. Then there are many other people like teachers who come to help. One general worker has been assigned to be like the overall caretaker taking care of the production units. So there are teachers and the top management as well as care takers. But the membership keeps on changing. This is because teachers come and go. So some members who were teachers have left. Some were deployed by the government as they were on PTA (being paid by the school).

On the same question relating to the composition of the membership of the Production Units, Participant Two (P T 2) indicated that:

The leader of the production unit in the school is the deputy head. The deputy head is the leader and who is the chairperson of all committees in the school. Then there is also the vice for the management of the production units in the school. The production unit comprises of six members. These include the deputy- chairperson, there are also two HODs, one general worker, in charge of looking at the feeding, cleanliness, and that the gardens are clean. Then there is one agronomist engaged by the school. This person is not on government payroll. He has just being engaged by the school.

In the same vein, the researcher sought to collect the views from another participant. According to Participant Three (PT 03) it was mentioned that:

The leader of the production unit is the deputy head teacher. She is the chairperson of all the committees. Then there is a committee. So the chairperson oversees all the committees and including the production unit. Then we have 10 general workers and eight teachers. Also, pupils are involved. Pupils are there to learn especially.

On the same question, the composition of the membership of the production units in schools, Participant Four (PT 04) in the in-depth interviews that were conducted in the schools targeted by the study revealed that:

The leader in charge of the production unit in our school is the deputy head who is the chairperson of all committees. So production unit is just one of the committees that fall under the deputy head teacher. For each project, let's say tomato or piggery units, so the person in charge of that unit takes care of everything. We are many and with specific duties based on which unit you are in charge of.

Also, more information was collected from the interviewees in relation to the question of how production units were being managed in schools with particular attention in this case given to the composition of the membership for production units and the school leadership in charge of the running of these units. According to Participant Five (PT 05), it was mentioned that:

The leader in charge of production units of course is the deputy head. Then there is a committee in charge of the production units. Then the committee discusses what they want to do. Then the ideas made are communicated to the head teacher for approval. If it means buying things, then the office of procurement is informed. There are a lot of general workers. These are about 10 to 14. The way we engage the general workers is based on the work available. If there is too much work to be done, we even hire people who come to do piece works. Teachers are also there taking care of different units like the garden, piggery and fish farming. We have about ten fish ponds.

From the excerpts by participants in the study, it comes out clearly that Production Units in schools sampled have an established within the school organization. The Deputy Head has the responsibility to oversee the functionality of the sector within the school. He or she works hand in hand with other members in the school. Like it has been revealed from the excerpts by the participants in the study, membership of the Production Units comprises the Deputy Head, Heads of Departments, Teachers, and Support Staffs. Further, these members work together to come up with plans on how the Production Unit sector in each school should be managed. Then whatever decisions the unit makes require the approval of the Head Teacher.

4.1.2 Activities under the Production Unit

The research was also interested in understanding what activities were taking place under production units in schools sampled in the study. To this effect, numerous interviews in relation to the aforementioned subject matter were conducted with different targeted participants.

According to one of the participants in the in-depth interviews that were carried called Participant Three (P T 03), it was stated that:

We have so many activities under the production unit in this school. We have a piggery, we grow tomatoes, and we are doing very fine in these areas. We also do fish farming. We have about 10 fish ponds in the school. We are also doing gardening. We are growing vegetables and onion. We are also into growing of maize for both the rain season and winter maize.

Another targeted participant in the study, called Participant Five (P T 05), on the question of the activities being carried out in the sampled schools under the production unit section, came to elaborate that:

Our school has a number of activities under the production unit. We have fish pond. This is when we have gone into fish farming. Then we have a garden for vegetables and tomatoes. Also, the school has goats. We have twinned with another school in Chirundu and that is where we are keeping the goats from. When it is time to sale, these goats are brought to Lusaka.

On the question of the activities that were taking place under Production Units in schools sampled in the study, the excerpts by the participants revealed that the activities were numerous. These ranged from growing of tomatoes to onions, maize, fish farming, goat rearing and piggery. While some of the activities were taking place right in the school premises in some cases, schools twinned with other schools that had more land and favorable environment in the outskirts of Lusaka especially for goats' rearing in other cases.

4.1.3 Democratic Governance in the Management of Production Units in Schools

The study was also interested in establishing democratic governance in the management of production units in schools. The main aim was to find out if there was democracy in the manner decisions were being made pertaining to how production units were being managed in schools. It should be noted that participation is very cardinal in the formulation and successful implementation of school objectives and including those decisions pertaining to how production units are being managed in schools. Therefore, a number of questions were asked and in relation to this particular objective of the study. The responses from the participants were as revealed below.

According to one of the participants in the study called Participant DG 1, a number of important sentiments on democratic governance in the management of production units in schools were shared. In this in-depth interview, it was revealed that production units in schools have freedom to make their own decisions on what activities to focus on. The unit was free to discuss and identify what projects to embark on. This is as evidenced in the excerpt by participant DG 1 below:

I feel the process of decision making is very democratic. This is because there is that freedom to make decisions by the team under Production Unit. We make decisions and recommendations. It is only that we also need to ask for permission from higher offices to spend money. Thus, in short, we can say that there is democracy. We have the freedom to make decisions we want.

According to another excerpt in the study by participant DG2, commenting on democratic governance in production units, it was equally mentioned that the process of decision-making under the Production Unit sector was highly democratic in the school. It was clearly stated that no single individual can successfully run the unit. The school recognized the importance of input from various stakeholders within the school. This was as evidenced from the excerpt by DG2 below:

The process of decision making is highly democratic. Nowadays in modern management, we deal with team work. If you want to do it alone as a leader you will fail. So the teachers are involved, the parents and learners are involved. Procedures are followed.

Furthermore, on the same question of democratic governance in the management of production units in schools, more interesting views were shared by the targeted participants. The third participant in the study was also of the view that decision making process under the Production Unit section was democratic. This was as evidenced from the excerpt by participant DG 03, in this study and where it was mentioned that:

I think the process of making decisions over production units is very democratic. If one is given the post to run a unit such a one is given some autonomy to make a lot of decisions. The management does not interfere in the manner the unit is being managed.

Yet another participant in the study, in bringing out issues pertaining to democratic governance and the way decisions are made under the production units in schools, Participant DG 10 revealed that:

When it comes to making decisions, the senior people in the school decide what should be done when it comes to the running of production unit. There is the head teacher, the deputy head teacher and the committee sits together to make decisions on what should be done. Then thereafter the general workers and other members of the production units are informed on the way forward.

On the same question of democratic governance in the running of the production units in schools, it was further shared by participant DG 12 that:

Production unit is a committee. We agree before making any decision. We sit down and discuss on what we want to do. We take minutes of what we wish to do. Then we forward the minutes to the head teacher for his consent. Then if she approves the minutes come back to us so as to embark on the said project. Then we make the budget for the activity we intend to carry out as a production unit committee. So it is clear that the running of production unit is not a one man show in this school.

As evidenced by all the excerpts above, findings of the study on the question of democratic governance in the management of Production Units revealed that all the participants that were sampled were of the view that the process of decision- making was very democratic. The running of

Production Units in schools was not a one man show. The process was consultative and inclusive in nature. The schools even had to go to an extent of asking permission from higher offices like the Provincial Education Office on how to spend money in relation to the budget for Production Unit.

4.2 Assessment of the Performance of the Production Units in Schools

On the question of assessing the performance of the Production Units in schools, the researcher asked a number of questions to the targeted participants that were purposively selected in this study. The questions were in relation to the second objective of the study that focuses on the performance of the production units in schools. The key questions in the in-depth interviews that were conducted in relation to the performance of production units focused on the performance of these units and the qualifications of the people working under production units.

4.2.1 Performance of Production Units in Schools

If production units are to realize the objectives for which they were re- introduced in schools by the government through the Ministry of General Education, the question of their performance cannot be ignored. To this effect, this study attempted to assess the performance of the production units in the targeted schools in the study.

On the question of how the production units were performing in schools, the study wanted to establish if the performance of these units so far was impressive, good, or undesirable. Therefore, the targeted participants in the study were asked to share their perspectives on the aforementioned concern.

One of the participants in the study, called Participant Five (PT 05), revealed that production units were an impressive venture. Profits realized from the sale of the produce were important in financing other activities in the school. This was as evidenced from the excerpt by participant (PT 05) that revealed the following:

Production unit in my school is very impressive. For example, when we have tomatoes and do the harvest, we sell a lot of boxes and raise a lot of money just in weeks. So to me, production unit is a success in this school. The schools should not only rely on user fees. So money from production units

has been key in buying stationary and even paying the support staff in the school.

According to Participant Six (PT 06), on the performance of production units in schools sampled in the study, it was indicated that the good results from production units were vivid within the school. This unit was key in raising financial resources at school level so as to meet various educational needs within the school especially during the Covid 19 pandemic period that has caused very serious financial strain on schools. It was further stated that there was room for the school to up its performance with the passage of time and especially that the concept of production units was still new in schools. This was as evidenced from the excerpt by participant PT 06 below:

The results are there to show. When you go round you will be able to see that we are doing something. We are not there yet. I can't say the performance is impressive or good or undesirable. There is room to improve. The results are showing. But we are not yet there. Like in this time of Covid 19, some schools laid off their workers. But here we maintained everyone and they were on full salaries. This was because of the funds coming from production units. So I can say the production units are adding value and there is still room to do more.

According to Participant Seven (P T 07), sharing on how the production unit section was performing in that targeted school in the study, it was mentioned that the school was doing fine so far. There were a lot of production unit activities that were running; in the school. Money realized from these activities was important in financing educational needs in the school and the units provided a platform for learning for the school.

In terms of the performance of production units, we are doing very fine. We are growing different crops, keeping fish, we have poultry and the gardens. Pupils are helping to do gardening. They help with the poultry. We have been selling. Our school was even on Television and we were selling tomatoes. The government and schools have no money to pay the workers. So when the schools sell the produce this helps to meet the salaries of the workers. We make money.

Also, it gives the learners an opportunity to learn agricultural skills. These come and participate in growing cabbage and keeping chickens.

Another respondent on the same question pointing at how the production units could be rated in terms of performance, Participant Nine (P T 09) indicated that:

There are many activities that we have under production units. For now we have about four. We have tomatoes, onions, fish farming and goats. We have twinned up with a school in rural area. So we have invested in goats and fish ponds in Chirundu District. Last time we got about 80 goats and sold here in Lusaka. So we are doing well although it is difficult to rate the performance of the units as good or impressive. So depending on school fees alone is not enough. Pupils are not paying. Like for now, about 90 % of the learners have not paid user fees. So profits from production units help to meet school financial needs.

In enquiring further on the same subject matter, participant Thirteen (PT 13), came to elaborate that:

So far we can say the performance is good. But there are a lot of challenges still. Tomato growing during winter is not a problem. But in rain season it is a big challenge for us. It requires a lot of chemicals. So depending on the season we are in, production units can be less productive or more productive. Also, the same applies to fish. In cold season it is rough. Performance is season based. In the cold weather it is expensive to restock fish. So it is not always that we can say the performance is impressive at this stage. Rather, what we can say is that the performance is good. And it is a success. The Minister and Permanent Secretary are all involved, so schools have good support from the ministry. And what we have realized has really helped the school financially especially that the school fees have been drastically reduced.

The findings from the study on the performance of production units in schools sampled generally showed that these units were an impressive venture and profitable to schools. Money realized from

sales was greatly helping the schools to meet their financial needs in many areas of educational provision. Salaries for supporting staff could come from the sale of the produce under production units in some cases.

4.2.2 The Qualifications of the People working under Production Units in Schools

The researcher was also interested in understanding whether or not the people working under production units were trained. It is unquestionable that training and especially appropriate training enhances the productivity of the workers. However, there is need to establish if schools have put into consideration the question of training or qualifications of the people working under production units. Like it has been revealed in the previous chapters, the essence of re- introducing production units in schools is that of helping schools improve their financial muscle, meeting nutritional needs of the learners, and profits realized from production units to help promote quality education.

One of the participants in the study, called Participant Ten (PT 10), commenting on the qualifications of the workers that work under the production unit section in the school, the findings came to reveal that even if professional qualifications were important, having an idea of what is required to be done was the foundation. That is what was very important. This was as evidenced in the excerpt by participant PT 10 that indicated that:

Academic qualifications matter when it comes to participation in production units. One should have an idea. Like in my case, despite being the HOD for mathematics, I have a diploma in Agriculture. So it is helping me a lot as the person in charge.

On the same subject- matter, participant Eleven (PT 11) stated that the workers under production unit do not possess any appropriate qualifications. Working under production unit was experience-based. Participant PT 11 clearly stated that:

I have no qualifications in production units. But through experience I have gathered enough knowledge to run these production units in this school.

On the question of the qualification of the members of the production units in relation to the activities being carried out under production units, Participant Thirteen (PT 13) mentioned that the

members of the production units had no appropriate qualifications. People were appointed largely based on their interest and willingness to participate. This was as revealed in the verbatim excerpt by PT 13 below:

In terms of participation in production units, there is no qualification that is put into consideration when appointed members of this committee. Like for me I am just a mathematician but still part and parcel of the production unit. What is important is the passion of the person. Do you interest in agricultural activities. Do you have a heart to learn. Today technology is on our finger tips. Go to websites and study different information shared by experts on a diverse of activities.

In collecting more information on the qualifications of the workers under the production units in schools, yet another participant called participant Twelve (PT 12) in the study, said that those who had qualifications it was just by chance. This was very true especially when it came to the fact that someone under Agricultural Science section was picked by the school management to help under the production unit section. In the excerpt by participant 12, it was brought to light that:

The workers under production unit do not have the necessary qualifications. They are just assigned to be part of the production units based on their availability and passion for the production unit. But some people have some qualifications. You will find that someone is a teacher of Agricultural Science.

Furthermore, on the same subject- matter, more views were collected from the participants. Similarly, the findings were pointing to the fact that the people under production unit do not have the relevant or appropriate training in production unit related activities and some of them were even holders of Bachelors of Arts. However, the participant was quick to mention that consultancy in areas that were too technical could be provided by those under the agricultural science section within the school. According to participant Thirteen (PT 13), it was mentioned that:

We are teachers by qualification in this institution. So how do you talk about the qualifications? In my case I have a Bachelors of Arts degree and I am still part of production unit in the school. So it is not about having

qualification in production unit. It is all about passion. But we have our friends from the agricultural science department. So those come in as consultants. When we have a challenge we go to consult them.

Again, participant Fourteen (PT 14) recognized the need for qualifications. But it was emphasized that individual interest is what was more important. It was further said that school leadership was an integral part of building interest in the members under the production unit. This was as evidenced by the excerpt from PT 14 that revealed that:

Qualifications matter. But it goes with interest first. You don't force people. Sometimes we build interest in people. It is about the managers and how they handle people. Approach matters. You cannot say one has no interest. Sometimes you build interest. So you can pick people without qualifications and build interest in them as well as show them how things are done.

On the question of relevant and appropriate qualifications, as evidenced in all the excerpts above by the sampled participants in the study, the findings showed that these were lacking. To work under the production unit section it was a matter of performance, interest and experience. Those who had some form of qualifications were just a matter of chance because such a one came from the Agricultural science section. However, where challenges faced were too technical for a lay man, schools sought professional consultancy.

4.2.3 Training of the Workers under Production Units

Training is key in sharpening and enhancing the skills embedded in the workers. This is what greatly enables the organization to get optimum output from the workers' productivity. Therefore, one of the sub- units of the research questions looked into the issue of training among the workers involved in the running of the production units in schools.

According to Participant Eleven (PT 11) in the study, it was revealed that going for training so as to enhance the efficiency of workers under the production unit section was lacking. There only thing that the workers were relying on were review meetings. This was as evidenced in the verbatim excerpt by PT 11 below:

So far, I have not attended any meeting or workshop on production unit related issues. But as a school, sometimes, we do have review meetings. We sit down and review how the production unit is running. Training is very important. This is because people will know and be very sure how to go about different activities under the production units.

More views of the targeted participants were collected in the study. Participant Sixteen (PT 16) added that only school managers have received some kind of training. But there is need for more people to go for training in production unit related activities especially that teachers may be transferred anytime. So this call for the need to have more trained people can take over once one or more teachers who are under production unit are transferred. This was as evidenced in the excerpt by participant PT 16 that stated that:

As school managers we have gone for training. And we send some teachers for training. Some teachers have being trained in areas of piggery and fish farming. Training is important. It helps to combine theory and practice. And we want more people to get trained. This is because teachers can be transferred any time. Teachers are not permanent. So if you are depending one teacher and that teachers get transferred it becomes very disturbing.

Similarly, targeted participant Seventeen (PT 17) in the study on the need for training among the people tasked with the management of production units in schools, indicated that only the school Head Teacher had gone for training. The rest were tapping into the knowledge that was acquired by the Head Teacher. Participant PT 17 mentioned in the verbatim excerpt below that:

In terms of training, it is only the bosses that go for training. For example, the head teacher attends workshops. So whatever that they learn at the workshops is shared with the teachers and general workers under the production unit. So training is very important. And here it is only the bosses that go for training. Training is very important especially for those who are blank about production unit. As for me, I was trained by some whites in the 1980s.

On the question of training for the members in the production unit, the study really wanted to establish if there was any formalized training for schools that have embarked on carrying out production unit activities. However, like it has been revealed from the excerpts above, most of the participants targeted in the study and under the production unit section, had no qualifications. Similarly, participant Fourteen (P14) in one of the schools that was sampled in the study, indicated that training was crucial even if it was missing. Schools relied only on reviews within the school. In the end, this was impacting negatively on the performance of production units as many schools were just into copy and paste in terms of what their friends were doing. There was lack of clear knowledge, understanding and application. This was as evidenced in the verbatim excerpt from PT 14 below:

We have not gone for training. Local workshops just within the school are held and sometimes with other schools like the one we have twinned with in Chirundu. This is very important. It helped us to update ourselves. Like for tomatoes you need to know the type of tomato to plant and according to the season. Chemicals also matter. So training is cardinal. Many schools have failed because of just copying and without training.

As it has been revealed in the verbatim excerpts above, it is very clear that specialized or formal training on how to run different activities under the production unit section in the schools sampled in this study was missing. Everything was based on individual interest and some experienced gained with time.

4.2.4 Accountability in the Running of Production Units in Schools

Accountability is cardinal in successfully running any project or programme. It ensures that resources are used by the right people and in accordance with the laid down regulations.

On the question of accountability in the manner the production units sections were being run in schools, one of the targeted participants called participant Three (P T 03) in the study, mentioned that there was accountability in the running of production unit section in the school. People in the school participate in a number of activities taking place under the production unit and money

realized from the sales is deposited in school accounts for the purpose of accountability. Like in the verbatim excerpt from participant PT 03, for example, it was clearly stated that:

There is accountability. There are many stakeholders in the running of production unit. For example, the procurement of things needed under production unit follows all the necessary procedures. Money realized from it goes into the school account. So it is not an individual doing it. So there is very much accountability. When it comes to sales, so many people are involved in doing it. So many people are at liberty to see what is happening.

4.3 Determination of the Challenges that Affect the Performance of Production Units in Schools

In attempting to determine the challenges that affect the performance of production units in schools, the study sought the views of the targeted participants on the aforementioned issue. Pertinent views were shared in the in- depth interviews that were carried out.

On the challenges, lack of materials to use under production unit section was one of the challenges that the workers under the production unit were facing. Also, poor timing in terms of activities sequencing immediately after winding up a project was a concern. This was as evidenced in the verbatim excerpt from participant Seven (P T 07) in the study where it was narrated that:

Maybe I can just talk about the availability of the materials to use in carrying out the activities like the inputs. But the issue of problem can be best answered by the head teacher. Since he [head teacher] is the key decision maker in the school. Also, what I can say is that there is need for smooth running of production units. For example, when you harvest the fish there is need to put new fingerings in the fish pond. When we have sold the chickens there is need to quickly re- stock. But this is not the case. Sometimes, months pass without re- investing in the project. So we lose out in terms of making money.

Furthermore, inputs and inefficiency associated with the process of procuring items needed to run production unit section was a concern under challenges affecting the production unit. Participant Nine (PT 09) in the verbatim excerpt below mentioned that:

The main challenge is the resources. We need inputs. Then the headteacher has a threshold in terms of how much he or she can approve. So we need to take it to the PEO. By the time they approve that side you will lose time in terms of the effective running.

Correspondingly, participant Five (PT 05) in the study mentioned time and manpower as one of the key challenges. It was brought to light that since some members are teachers and whose core business was teaching, it was difficult for them to dedicate adequate time to support the efficient running of production units in schools. According to the verbatim excerpt from PT 05, it was narrated that:

Time is a major challenge. I am the supervisor of production unit. But I am a teacher. I need to be in class. But right now I have to go and buy feed. So time is a very serious challenge. Apart from time, manpower is a challenge. The number of workers is limited. We have no money to pay the workers. This depends on the profits and funds available.

In addition, another participant that was sampled in the study called Participant Six (P T 06) revealed that the workforce was not adequate. There was need to recruit more support staff to help under the production unit section. This was as evidenced in the excerpt below:

Workers are not enough. Sometimes we are overwhelmed by the activities of the production unit. So there is need to get more workers so as to run the production units properly. We need to increase the workforce.

Again, on the challenges affecting the management of production units in schools, a respondent called Participant Seven (P T 07), added in the verbatim excerpt below that water was a serious challenge. Another challenge was changes in the seasons. Some activities are difficult to carry out in certain seasons. It was stated that:

Fish ponds are faced with a challenge of water. Fish grows well when you are changing water. You need to change water frequently and like every after two weeks. So there is need to address the water issue. We are drilling boreholes and as a school we have asked Lusaka Water to drill a borehole this has taken long. Last time when they came to drill a borehole their equipment went down. This time they are saying there is too much water underground. So we need to wait until the end of the rain season. Theft is also challenge. People came in the night and stole some fish. We have security but not enough. Also, commitment from teachers involved is a major challenge too. Some teachers are not doing the right thing.

As evidenced from the excerpts above, schools were facing a number of challenges in running production units. The main ones included water, manpower, and lack of the necessary resources to efficiently support the effective running of production units in schools and including inputs.

4.4 Determination of the Measures necessary to Enhance the Management of the Production Units in Schools

In addressing the fourth objective of the study and that looked at the measures necessary to enhance the management of production units in schools, a number of responses were collected from various participants that the study targeted. It should be noted that if production units in schools are to be profitable there is need for creativity and innovation as well as growth of the activities taking place under these units. This can only be possible if the challenges are identified and the necessary measures put in place. It should be noted that if production units are well managed, these can be a very lucrative venture for schools that can greatly cushion the institutions of learning financially, help improve nutritional needs of the learners, and provide a platform for learning especially for the learners under agricultural science related subjects.

According to participant Eighteen (PT 18), on the question of the measures necessary to enhance the management of production units in schools, it was revealed that there was need to expand the activities under the production unit section so as to increase the profit margins. Schools must focus on diversification of the activities. Land was a must if schools were to expand the activities the under production unit section. This was as evidenced in the verbatim except from PT 18 below:

There is need to expand the activities under production unit. We need diversify. There is need to look into maize, sunflower, bananas and other crops. This can greatly help to make money. There is need for crop rotation so as to enhance the fertility of the soil. We should not destroy the soil. This can help to cut on costs like on fertilizer. Also, there is need to look for a farm as the land in the school is not enough to expand the production unit project so as to make it more profitable.

Again, more information on the aforementioned subject matter was collected from the participants in the study. It was mentioned that the government should embarking on recruiting workers to be specifically assigned to the production unit section. These should have appropriate training and working on full time basis. Participant Eleven (P T 11) sampled in the study and as evidenced in the verbatim excerpt below narrated that:

If the government was employing people to be in charge of production units in schools this can help these units a lot in terms of manpower. If the government can be employing one agronomist in schools then production units will tick. We need people who can be working on full time. This can go a long way. It is a serious challenge for many schools.

Furthermore, participant Twelve (P T 12) revealed that there was need to increase the workforce. Engaging people who are trained was equally crucial when it came to the question of enhancing the performance of the production unit section in schools. This was as evidenced in the excerpt from PT 12 below:

Increasing workforce and engaging more people who are trained can help to improve the performance of the production units. We need to get people who are trained in agriculture to run these units.

In the same vein, commenting on the measures necessary to enhance the performance of the production units in schools, Participant Fifteen (15) in the study indicated that motivation especially for the teachers under the production unit section was paramount. This was additional work for them and there is need to boost their morale and commitment. Identifying the market was paramount too.

Sometimes produce is wasted due to distance to the readily available market leading to wastefulness. This was as evidenced in the verbatim excerpt below from participant PT 15:

There is need to motivate those teachers working under production unit section. That is extra work for the people as we are just teachers. There is need to work on the market issue. When there is high production sometimes you have no market to sell the produce. So these are wasted. For example, you cannot keep tomatoes which have ripened for a long time.

Another participant in the study, called participant Eighteen (PT 18), looking at the question of the necessary measures need to enhance the performance of production units in schools that were sampled in the study, argued that the vision of the school management was cardinal. The school management should be profit- oriented. Partnerships, transport and market were key in enhancing the performance of the production units in schools. Below is the verbatim excerpt as narrated by PT 18:

The vision of management is important. The school leadership must be visionary. Does the management wish to maximize profits from production units? Then they should put in place all the necessary measures. Our aim in this school is to realize maximum profits. That is our vision. In this case, partnerships with experts in this field are key. There is need to partner with the Ministry of Agriculture and Fisheries so as to tap into their expertise. Market is important too. In our case, customers have been coming from as far as Kasumbalesa border post. But for now we do not have our own transport to take our produce out there. Even buying inputs like feed for fish and pigs is a challenge. We just have a bus. There is need buy a utility vehicle. So there need to look into three important issues: Transport, partnerships and marketing. Then production units that way can really maximize their profits.

4.5 Summary of the Chapter on the Findings of the Study

This chapter presented the findings of the study. These were based on the four objectives of the study that were related to the research questions. The findings were categorized into a number of

themes that emanated from the research questions. The major themes of the study included: Management of Production Units in schools; assessment of the performance of production units in schools; determination of the challenges that affect the performance of production units; and the necessary measures to enhance the management of production units in schools. The next chapter will present the discussion of the findings of the study.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.0 Introduction

This chapter presents the discussions of the findings of the study. The findings of the study were guided by the purpose of the study, the objectives which were related to the research questions, related literature of the study, the methodology that was selected and the responses of the participants through the in- depth interviews that were conducted. The discussion has been categorized into themes and which are based on the research questions in the study.

5.1 Management of Production Units in Schools

The first objective of the study aimed at establishing how production units in selected secondary schools in Lusaka District were being managed. This objective was divided into three themes and these were: composition and leadership of the production units; the activities being carried out under the production units in the selected schools in the study; and determinations of the existence of democratic governance in the manner production units were being managed in schools. The findings of the study on the management of production units in the selected secondary schools revealed a number of things as it will be discussed under the sub- themes of the first objective provided below.

5.1.1 Composition of Membership of Production Units

To start with, it was found that schools sampled in the study had a well- established for production units. In terms of the composition of the membership of production units, it was revealed that the Deputy Head was the chairperson of the Production Unit Committee. Then a Head of Department, Teachers and Support Staffs were members working hand in hand with the Deputy Head. So this shows that production units are well organized within the school organization. Therefore, the Deputy Head had the responsibility to oversee the functionality of the sector within the school. It was also established that whatever decisions that the production units were making required the approval of the Head Teacher for accountability purposes.

5.1.2 Activities under the Production Unit Section in Schools

On the production unit activities being carried out by the secondary schools that were sampled in Lusaka District in the study, the findings revealed that these were numerous. Schools carried out activities such as growing of tomatoes, onions, maize, fish farming, goat rearing and piggery. This showed that schools had a great potential in the area of production units. There were a number of viable and productive projects taking place under these units. The idea of production units was therefore a step in the right direction. Also, some of these activities under the production units section were taking place outside the school locality. According to the findings of the study, this was largely due to the challenge of space in schools especially that the study was dealing with schools in Lusaka District. This, too, was a good move as it was giving schools an opportunity to expand their production units activities. Therefore, activities like the rearing of goats in schools were carried out through the initiative of twinning with other schools in the outskirts of Lusaka that had more land and with favorable environment especially for goats' rearing. Arising from this discussion, it was very clear that the production units were active ventures in schools due to innumerable and viable activities that were taking place under these units. Schools should continue with these activities as they had potential to help schools address financial challenges and other educational needs required to promote quality education at secondary school level.

5.1.3 Democratic Governance in the management of Production Units in Schools

Yet another sub- theme of the study looked at democratic governance in the management of production units in schools. The study was interested in establishing whether or not there was democratic governance in the management of production units in schools. It is generally believed that participation is very cardinal in the formulation and successful implementation of school objectives and including those decisions pertaining to how production units are managed in school organization globally. This study showed that production units in schools were run democratically by school managements through involving the participation of different stakeholders in the school. Committee members were free to decide what activities to embark on under production units and to present their proposals to the Head Teacher as the final accountable officer in the school. The findings of the study agreed with those of Caria and Andrade (2016) who found that participation is key in enhancing the performance of institutional activities and that participation must be influenced

by the fact that doing things with others is more effective and efficient than doing it alone. Thus, it was evident that the running of Production Units in schools was not a one man show. For instance, one would expect that the Head Teachers could be the only ones controlling the management of production units in schools as they were the overall school managers. However, this was never the case. There was delegation to the Office of the Deputy Head and the Production Unit committee in the school organization. The process of decision- making was said to be consultative and inclusive in nature. To this end, schools even went to the extent of seeking permission from higher offices like the Provincial Education Office on how to spend money in relation to the budget for Production Unit. This was very important for accountability and counter- checking of the activities under the production units. In the same vein and on democratic participation in schools, Luck (2008) states that participation must not be just within the school. Rather, the community must be engaged too. This form of participation must not just be about engaging the community in the execution of activities but also quality decision- making processes. Based on the findings of the study, this kind of communal engagement was lacking in the secondary schools that were sampled. Production units only engaged members within the school. Therefore, there is need for schools to tap into the wealth of knowledge that comes from the community when it comes to the successful management of production units. It should be noted that sometimes the community may have even people who would wish to support schools on voluntary basis.

5.2 Assessment of the Performance of the Production Units in Schools

The second objective of the study assessed the performance of the production units in schools that were sampled in the study. This was the major theme of the study. The sub- themes were performance of production units, the qualification of the workers under production units in schools, and the availability of training for those workers especially without any form of training in production unit related activities.

5.2.1 Performance of the Production Units in Schools

The findings from the study on the performance of production units largely showed that these units were an impressive venture and profitable to schools. For example, 12 of the 18 participants that were targeted in the study revealed that the production units were impressive. The remainder of the participants mentioned that there was room for them to do more as the concept of production unit

was new and their school had just embarked on it. It was further revealed that the money that was realized from sales was greatly helping the schools to meet their financial needs in many areas of educational provision. The findings were similar to those of Zachariah and Hoffman (1994) who found that money from production units helped education institutions in a number of ways. The duo in their study established that in 1994 alone, the profits from the school in Guanzhou No.6 in China totaled 1,000,000 Yuan and provided 50 % of the school operating funds and which was equal to the amount provided by the government to run the school. The findings were also in agreement with the aims of production units when they were firstly introduced in the country. According to the MOE (1976), production units were to help in the area of producing a cash surplus from its activities which could be used to improve and expand educational services. One of the areas that were frequently mentioned was salaries for supporting staff. It was stated that money from production units was instrumental in meeting the wages of support staff. Another participant mentioned school stationary and learning materials. Also, it was stated that the gardens were helping the pupils and teachers with a cheap supply of fresh vegetables for consumption. Therefore, production units were performing well as they were adding value to the provision of quality education through helping to meet the financial needs in different needy areas. This finding was in line with the revelations provided by FAO (2010) that there are a number of benefits associated with production units in schools such as income generation, food security, imparting of survival skills, better nutrition, and promoting research. Similarly, Nyamwega (2016) found that schools in Kenya raise a lot of funds from activities under the production units thereby enabling the school to meet the financing of education while waiting for government funding. The funds schools were making ranged from KShs. 680,000 to KShs. 6,000,000 from income generating activities annually.

5.2.2 The Qualifications of the People working under Production Units in Schools

Globally, it is recognized that training and especially appropriate training in a given field enhances the productivity of the workers. This enhances efficiency levels leading to better performance. Consequently, the study sought to establish whether or not the people running the production units in schools had any necessary training. It is important to understand that the essence of re- introducing production units in schools was to help to improve schools' financial muscle, meeting nutritional needs of the learners, and profits realized from production units to help promote the provision of quality education at school level.

The findings of the study on the qualifications of the people under the production unit section showed that the people were not trained in production related activities of these units. It was revealed that for one to be considered as a worker under production unit, it was a matter of performance, interest and experience. The school management was not necessarily interested in people with the right qualification in the school as these were non-existent in some schools. This was a threat to the sustainable development of production units as having the right qualifications determines one's efficiency and effectiveness in executing his or her duties. Bwalya (1983), looking at production units in some Zambian schools and Colleges, equally emphasized that there was need for teachers in schools to be trained in production units activities as most of them lacked the necessary knowledge and skills. Therefore, the key factor was one's passion in supporting the growth of production. Arising from this discussion, there is an urgent need for schools to start engaging qualified personnel in running production units.

Furthermore, the findings of the study established that those who had some form of qualifications under the production unit were just a matter of chance because such a one could have come from the Agricultural science section of the school. According to the findings of the study, only Head Teachers had gone for some form of training although they too had no relevant qualifications. The participants in the study also stated that where they were faced with technical challenges requiring specialist advice, schools sought professional consultancy and could also engage teachers from the Agricultural Science section. Arising from these revelations, it was clear that there is an urgent need to train workers under the production unit section. Knowledge, understanding and experience when intertwined enhance productivity and profitability (Kasonde, 1983). Thus, any real expansion and growth of production units in schools will demand that those serving under these units receive some form of relevant qualifications.

5.2.3 Training of the Workers under Production Units

It is indisputable that training is key in sharpening and enhancing the skills embedded in the workers. This is largely because it enables the organization to get optimum output from the workers' productivity. Efficiency and effectiveness determine progress in any project and organization. Subsequently, the study sought to establish whether or not the workers under the production units section were trained.

The findings of the study on whether or not the workers under production units in schools had some form of training largely revealed that formal training was lacking. This can be said to be one of the hindrances that the smooth operation and growth of the production units in secondary schools that were sampled in the study were facing. The people running production skills lacked the relevant skills and deep understanding of the activities they were carrying out under production units. Rather, school management just targeted people with interest or passion in production unit related activities in the school. These were appointed to champion the programme. To this effect, one may confidently argue that everything was based on individual interest and some experienced gained with time while serving under production unit in school. This shows that there was knowledge and understanding gap in the implementation of production unit activities in school. It should be noted that specialized training builds a strong foundation for success in any given project. According to Singh (1998), high standard training enhances the quality of products being produced and increases the profit margins, it leads to the deepening and diversification of skills among the workers necessary for enhancing performance. But in this study, the findings showed that the people under production units lacked the necessary training in relation to the kind of activities that they were carrying out under production units. Therefore, the fact that people under production unit section lacked appropriate training should be looked at as a threat to the expansion and sustainability of these programme in schools. There is need for the stakeholders in the promotion of production units in schools to seriously look into this matter if these units are to yield the expected results. The Ministry of General Education should try to come up with some Memorandum of Understandings with training institutions that deal production units related field of study and possibly sponsor some teachers to go for training in these area. This can be done even through distance learning or online classes especially that there is Covid 19 pandemic.

5.2.4 Accountability in the Running of Production Units in Schools

Several scholars and institutions on accountability emphasize that accountability is cardinal in any successful and sustainable running of a given project or programme. It ensures that resources are used by the right people and in accordance with the laid down regulations.

On the question of accountability in the running of production unit section in the schools that were sampled in the study, 10 of the 18 targeted respondents clearly and confidently stated that there was

accountability. It was mentioned that different officers in the school participate in a number of activities taking place under the production unit like decision- making, budgeting and procurement process. The whole process is not a one man show. Also, more importantly, the money that was being realized from the sales was deposited in school accounts for the purpose of accountability. So everything has done procedurally and inclusively. This was a very good move as accountability helps to minimize and in some cases to eliminate opportunities associated with wastefulness and embezzlement of public funds. However, despite most of the participants affirming that there was accountability, schools had total records of what was being spent on production units' activities. Therefore, there was not for the schools to start recording every purchase or cost of an activity and profits realized from the same. Steets (2010) defines accountability as providing accurate information about one's activities or behaviour; evaluating that behaviour with reference to certain standards, rules or expectations; and thereby recognising one's obligations and accepting responsibility for one's actions. When applied from the public institutions point of view, this implies that schools must be careful in the manner they carry out governance issues, engage stakeholders and reveal issues related to expenditure under production units and be subject to guidelines in the exercise of their authority. To this end, it is clear that the concept of accountability calls for being responsible. Those tasked with the mandate of governing the production unit and those employed in various production unit activities must always strive to be responsible in their actions. These should also share information with the school management, teachers, Parents- Teachers Committees and learners related to expenditure, budgets, resource mobilization and allocation, and key decisions being made. Like Omukoba and Ayodo (2011) put it, lack of transparency and accountability as well as poor record keeping and lack of qualified personnel may impact negatively on the running of production units in schools.

5.3 Challenges of Production Units in Schools

For any programme to run successfully and sustainably, challenges that hinder its performance or attainment of the set goals have to be identified. This was the main aim and theme under the third objective of the study. In attempting to determine the challenges that affect the performance of production units in schools, therefore, views of the targeted participants on the aforementioned issue were recorded and analyzed.

Several challenges that affect the performance of the production units in schools that were sampled in the study were raised by different participants in the study. Key among these challenges were: inadequate water supply in schools, lack of adequate and appropriately trained manpower to help in carrying out the activities under the production units, and lack of the necessary resources to efficiently support the effective running of production units in schools such as funds and inputs, and lack of time among teachers under production unit as these were supposed to attend to lessons in class too. Other challenges were those related to lack of utility vehicle and availability of market at the time of harvesting. The finding on lack of time was similar to the findings by Hoppers (1989), who found that some of the key factors related to the failure of production units in the 1980s included failure to integrate the production unit activities with the school curriculum more harmoniously in terms of time allocation and a clear definition of inputs to make production units more viable.

The challenges that were raised by the participants and as outlined in the preceding paragraph require very serious attention from different stakeholders in the management of production units in schools. For example, water plays a critical role when it comes to activities that require irrigation and keeping of animals. Therefore, where there is inadequate supply of water, this puts activities like fish farming and gardening at risk. Waithera (2013) recognizes the importance of developing mechanisms of water supply to schools in Africa by acknowledging that it is not possible to rely on rain water due to poor pattern of rain cycle in many parts of Africa. Similarly, lack of resources like funds and inputs may seriously lead to inefficiency in the running of production units in schools. Financial resources are at the centre of any effective implementation of programmes in different organization. These resources determine an organization's ability to deliver and meet its set goals. These findings were in line with those by Bwalya (1983), who looked at the challenges affecting production units in Luapula and Copperbelt provinces in Zambia. He found that the key challenges were lack of sufficient supply of water, inadequate capital and theft. Therefore, water is very important especially when it comes to activities like fish farming and gardening. This has to be in constant supply.

Furthermore, the importance of availability of market cannot be over- emphasized. Production without the relevant market may result into losses. This is because the produce that cannot be preserved or sold at the right time is highly likely to go to waste. Thus, there is need to address the

question of creation of readily available markets so that schools do not make any losses that are associated with lack of market. It has been noted that when production units were introduced for the first time around 1975 in Zambia, they were a great success. The units helped schools a lot in terms of valuable income that enabled schools to purchase stationary, carry out repair and maintenance works, and catering for sundries like transport (Hoppers, 1998; Kelly, 1991). This is how school managements should view production units today. These are valuable and lucrative ventures that can greatly assist schools with a sustainable source of income.

5.4 Measures necessary to enhance the Management of the Production Units in Schools

The fourth and final objective addressed the measures necessary to enhance the management of production units in schools. It is unquestionable that if production units in secondary schools in Lusaka District are to be more profitable and sustainable, necessary measures and environment centred on creativity and innovation, teamwork and building on successes scored is the way to go. Therefore, identification of measures that can propel growth and sustainability of production units is a very important exercise. This is largely because if production units are well managed, these can be a very lucrative venture for schools that can greatly cushion the institutions of learning financially, help improve nutritional needs of the learners, and provide a platform for learning especially for the learners under agricultural science related subjects like it has already being indicated in the previous chapters.

One of the findings of the study revealed that there was need to expand the activities under the production unit section so as to increase the profit margins. It seems that schools were still operating at subsistence level. Therefore, there was need to commercialize production units so as to cater for wider markets and make them more lucrative. This calls for expansion of the activities under production units and diversification through land acquisition. The findings of the study were similar to those of Waithera (2013) in Kenya and who found that there was need for schools to secure farm land so as to accommodate agricultural expansion. Participants in the study indicated that land was a must if schools were to expand the activities under production unit section. To this effect, it can be safely argued that schools should start searching for land that can help to extend production unit activities. Like in the case of China, it was observed that what started as simple work- study school programmes today consist of factories, farms, construction companies, and a wide range of business

services (Singh, 1998). Therefore, production units in schools in Zambia have the potential to grow and become big national cooperation supplying goods and services around the country and even abroad.

Another measure that was brought to light was the need to employ people who are adequately and appropriately trained to manage and supervise the operations of production units in schools. Preferably, those with Agricultural Science and Business studies background may be more appropriate. According to Fugar, Ashiboe- Mensah, and Adinyira (2013), human capital is generally accepted as the most valuable asset of nations and organizations. Therefore, schools need to employ people who are appropriately trained to run these units on their behalf. Omukoba and Ayoda (2011) equally emphasizes the need for qualified personnel to run production units if these entities are to attain the goals for which they were established. The participants in the study suggested that the government should come on board in employing well trained people to manage the production units in schools. For instance, it was observed that do not even have clear records in terms of expenditures and income realized from production units. Thus, trained personnel can greatly help to see to it that everything is in order. A study by Kahavisa (2003) found that there were no proper internal auditing set up in schools and that government auditing was irregular thereby making it easy for schools to misapply and misappropriate funds. Thus, it is unquestionable that schools have a challenge in the area of financial records management. It is possible that money from production unit sales is sometimes received but not clearly receipted or banked due to lack of qualified personnel to run these units in schools. In the end, schools may be losing huge sums of money all due to the fact that the officers in charge fail to record every expenditure and income thereby leading to the failure of production units in future.

Yet another measure from the participants sampled in the study was the need for motivation among the various workers who were working under the production units in schools. It was observed that most of the key people were teachers and these considered working under production units as an additional work schedule as they were mainly employed to attend to teaching and learning activities in classrooms. Subsequently, motivating these people was going to be key in encouraging their commitment and sacrifice towards making production units a success in schools apart from focusing on classroom activities and ensuring that learners are passing in their respective subjects. As Pratma and Triyono (2018) findings put it in their study, teachers attached to production units do not have

adequate time to balance between teaching in the classroom and attending to production unit activities. Therefore, motivating these teachers can go a long way in terms of winning their commitment and ensuring that there is a balance between different activities that take place in schools and requiring teacher input. However, the alternative is just to employ people who can be exclusively attached to running production units in schools although this can be a costly step too. Nevertheless, with the passage of time and when production units reach high levels of sustainability, this will be the best approach to take for schools.

Furthermore, the study revealed that schools needed to work on their marketing strategies. Sometimes produce was wasted like in the case of tomatoes due to non-availability of market at the harvesting time. This form of wastefulness was found to be unacceptable and hindering the growth of production units. To this effect, there is need for schools to strategize on market creation. This can be done by signing of some form of memorandum of understanding with supermarkets like Shoprite, Choppies and Pick n Pay.

Also, the vision of the school management was cardinal. School leadership should be visionary and growth – oriented in the promotion of the activities under the production unit. Leadership is very important in supporting the operation of any programme. Looking at leadership skills needed to make production units a success in schools, Nwamwega (2016) recommends that schools should use participatory approaches in running production units and any income generating ventures. This promotes team work and ownership of project goals thereby maximizing on productivity and profitability. Individuals feel more attached to a venture if they are engaged and tend to be more committed to realizing the goals of the venture. The success and failure of school organizations are tied to the leadership qualities and skills of the school manager in place. Also, many studies have revealed that school managers lack the necessary management skills when it comes to handling finances. According to Mestry and Grobler (2006), there is a shortage of head teachers in many schools with well-honed management skills, head teachers are usually not well prepared for tasks they must undertake and are neither given sufficient training to perform their tasks. Therefore, if head teachers or school managers are to be effective and efficient in handling of production units they need the necessary training in the area of management. They need to be taken through the course of financial management and they must prove that they have acquired the necessary skills needed to ensure that there is effective and efficient management of financial resources in schools

and including activities under production units (Musonda, 2017). Thus, it can be safely argued that school leadership must always ensure that their approaches are consultative and inclusive in nature as well as having the necessary management skills.

Again, there is need for schools to acquire small or medium size utility trucks to facilitate the buying and selling of goods under production units. Some participants pointed to lack of transport as one of the drawbacks that was hampering the performance of production units in schools. Participants targeted in the study revealed that it was a big challenge to procure feed for fish and pigs as well as other necessary items needed in the running of production units in schools. This clearly shows that working on transport related challenges was an urgent thing in schools.

Last but not the least, partnerships were said to be paramount. It was stated that there was need for schools to partner with the Ministry of Agriculture and Fisheries so as to tap into their expertise and other form of support that can be made available to schools. In the 21st century, partnerships are key if any organization is to score any appreciable success and enhance levels of sustainability. Apart from partnering with the Ministry of Agriculture and Fisheries, schools should also work hand in hand with supermarkets and training institutions that have wide coverage on programmes to do with fish farming and agriculture in general in the country. Schools cannot manage on their own. As Carmody (2009) and MOE (1996) put it, the provision of education of quality is a cost too huge to be solely managed by any single agency. The same applies to the management of production units. If these are to perform excellently then schools have to find other stakeholders to partner with.

5.5 Summary of the Study on Discussion of the Findings

This chapter discussed of the findings of the study. These were based on the four objectives of the study that were related to the research questions. The discussion of the findings of the study was categorized into a number of themes that emanated from the research questions. The major themes of the study were: Management of Production Units in schools; assessment of the performance of production units in schools; determination of the challenges that affect the performance of production units; and the necessary measures to enhance the management of production units in schools. The next chapter will present the conclusion and recommendations of the study.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusion and recommendations of the study. These are based on the purpose of the study and the objectives of the study which are related to the research questions. The main objective of the study was to assess the performance of the Production Units in selected schools in Lusaka District. The objectives were as follows:

- i. To establish how the Production Units are managed in selected schools in Lusaka District.
- ii. To assess the performance of the Production Units in Schools.
- iii. To determine the challenges that may be affecting the performance of Production Units in Schools.
- iv. To determine the measures necessary to enhance the management of the Production Units in Schools.

6.1 Conclusion

The study assessed the performance of production units in selected secondary schools in Lusaka District. It was established that production units in schools were well- organized. In terms of the composition of the membership of these units, the Deputy Head was the chairperson of the Production Unit Committee. The production unit comprised the Head of Department, Teachers and Support Staffs as well as the Deputy Head as a chairperson. Therefore, the Deputy Head had the responsibility to oversee the functionality of the production units within the school. Also, there were numerous activities taking place in schools under the production units. These ranged from growing of tomatoes to onions, maize, fish farming, goat rearing and piggery. Schools also twinned with other schools in the outskirts of Lusaka so as to resolve the challenge of land. Furthermore, decision making process under the production units was democratic in nature. The committees held meetings and members decided what activities to venture in. Thus, the process of decision- making was said to be consultative and inclusive in nature.

In terms of the performance of production units in schools, the study largely showed that these units were an impressive venture and profitable to schools. The findings further revealed that the money that was realized from sales was greatly helping the schools to meet their financial needs in many areas of educational provision. One of the areas that were frequently mentioned was salaries for supporting staff. It was stated that money from production units was instrumental in meeting the wages of support staff, school stationary and learning materials.

The findings of the study on the qualifications of the people under the production unit section showed that the people were not trained in production- related activities. It was revealed that for one to be considered as a worker under production unit, it was a matter of performance, interest and experience. The school management was not necessary interested in people with the right qualification in the school as these were non- existent in some schools. Therefore, the key factor was one's passion in supporting the growth of production. According to the findings of the study, only Head Teachers had gone for some form of training, although they too, had no relevant qualifications. Arising from these revelations, it was clear that there was an urgent need to train workers under the production unit section.

It is indisputable that training is key in sharpening and enhancing the skills embedded in the workers. This is largely because it enables the organization to get optimum output from the workers' productivity. Efficiency and effectiveness determine progress in any project and organization. Subsequently, the study sought to establish whether or not the workers under the production units section were trained.

The findings of the study on whether or not the workers under production units in schools had some form of training largely revealed that formal training was lacking. Rather, school management just targeted people with interest or passion in production unit related activities in the school. These were appointed to champion the programme. There is need to the stakeholders in the promotion of production units in schools to seriously look into this matter if these units are to yield the expected results. On accountability in the running of production unit section in the schools that were sampled in the study, it was established that there was accountability in the manner production units were managed. Also, more importantly, the money that was being realized from the sales was deposited in school accounts for the purpose of accountability.

A lot of challenges that were affecting the performance of production units were identified. Key among these challenges were: inadequate water supply in schools, lack of adequate and appropriately trained manpower to help in carrying out the activities under the production units, and lack of the necessary resources to efficiently support the effective running of production units in schools such as funds and inputs. Other challenges were those related to lack of utility vehicle and availability of market at the time of harvesting.

Finally, in terms of the necessary measures needed to enhance the performance of production units there was need to expand the activities under the production unit section so as to increase the profit margins. Another measure that was brought to light was the need to employ people who are adequately and appropriately trained to manage and supervise the operations of production units in schools. Yet another measure from the participants sampled in the study was the need for motivation among the various workers who were working under the production units in schools. Furthermore, the study revealed that schools needed to work on their marketing strategies. Also, the vision of the school management was cardinal. School leadership should be visionary and growth – oriented in the promotion of the activities under the production unit. Again, there is need for schools to acquire small or medium size utility trucks to facilitate the buying and selling of goods under production units. Last but not the least, partnerships were said to be paramount. It was stated that there was need for schools to partner with the Ministry of Agriculture and Fisheries so as to tap into their expertise and other form of support that can be made available to schools.

6.2 Recommendations

The recommendations of the study are four- fold. These are:

- i. Teachers and other workers in schools who are helping to run production units should undergo training in production units related field of study. This can be through part time or online classes. It is understood that teachers cannot leave classrooms and attend full time university or college training. This, thus, calls for alternative mediums of learning. Training is key in making the workers under production units to have deeper understanding of the concept of production units in schools and to acquire a variety of skills for sustainable development of production units in secondary schools. Production units are not just about planting, rearing of animals, and selling. There is need to understand issues to do with

diversification, changes in markets, seed variety, climate change and accountability. This is the only way in which efficiency and effectiveness under the workers who are working under production units can be attained in schools. The Ministry of General Education should sign Memorandum of Understandings with the relevant colleges and universities to support schools enroll their teachers and workers under specially designed programmes and at subsidized tuition fees. This can be in form of partnerships.

- ii. Schools should identify various and interested stakeholders who should come on board to help them address numerous challenges affecting the management of production units in schools. For instance, it was observed that land, water, transport, market, funds and training were challenges affecting schools in the management of production units. These challenges can be best addressed through partnering with different institutions. Land matters can be best addressed by the Ministry of General Education and Traditional Affairs working hand in hand with the Ministry of Lands. The three institutions may see how to help schools with farm land.
- iii. On funds, banks and agro- institutions that deal with funding of projects in terms of equipment and transport should be encouraged by Ministry of General Education to consider schools too. The Permanent Secretary under the Ministry of General Education should take an active stance in signing agreements with cheaper and client- friendly banking institutions that support small scale business with potential to become large enterprises. It should be noted that although these production units may appear to be small ventures, they have great potential to grow. All what schools need is great support from well- meaning stakeholders. In this case, banking institutions and other agro- institutions can be of much help in addressing these challenges affecting the production units in schools.
- iv. On the part of marketing, agreements should be signed with the help of the Ministry of General Education and Ministry of Commerce that schools be allowed by different supermarkets and chain stores to take their produce there on favourable terms and under the concept of “Buy Zambian, Boost local economy.” Zambia as a country is blessed with various supermarkets such as Shoprite Checkers, Choppies, Pick and Pay as well as different hotels and lodges. All these are potential markets for schools. But this is not an easy step to

take for schools at local level. It requires government intervention and through the Ministry of General Education, Tourism and Commerce. These should design appropriate policies that schools can tap into as a way of marketing and selling their produce.

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APPENDICES

Appendix I: In- depth Interview Guides for Head-teachers/ HODs and Teachers

How are you Sir/ Madam,

I am a Master's student conducting a study titled: **An Assessment of the Performance of Production Units in Schools: The Case of Selected Public Schools in Lusaka District.**

Please note that you have the right to participate and withdraw participation at any time when you feel like doing so. Also, whatever information that you provide will be treated as highly confidential and your name will always remain anonymous. The data collected will just be used for academic purposes and your welfare will not be jeopardized in any way. Welcome to the Interview Sir/ Madam.

1. Describe the activities that the production unit is carrying out in the school.
2. How is the Production unit run in this school in terms of the members and workers as well as source of authority?
3. How do you ensure that there is transparency and accountability in the manner the production unit is run in the school?
4. Does the academic qualification and experience of a person in relation to the activities under the production unit matter when appointing who should be in charge of the production unit?
5. Describe the performance of production unit in your school? Is it impressive, good or undesirable? And why do you say so?
6. In a term and a year how much does the school collect from the production unit in terms of sales?
7. How is the expenditure in relation to the profits from the sales from the production unit? And from your own analysis what can you say on expenditure and investment into production unit worthiness?

8. What has been the total sales from the previous harvest or sales?
9. Explain how the school promote capacity building in the running of production unit?
10. What challenges are you facing in the running of the school production unit?
11. Explain the sources of some of these challenges affecting the running of production units in schools?
12. Explain what you think should be done to enhance the performance of production unit in your school?
13. What are some of the measures that you think can enhance the performance of production unit in your school?

Thank You For Your Participation.

Appendix II: In- depth Interview Guides for Support Staff Workers

How are you Sir/ Madam,

I am a Master's student conducting a study titled: **An Assessment of the Performance of Production Units in Schools: The Case of Selected Public Schools in Lusaka District.**

Please note that you have the right to participate and withdraw participation at any time when you feel like doing so. Also, whatever information that you provide will be treated as highly confidential and your name will always remain anonymous. The data collected will just be used for academic purposes and your welfare will not be jeopardized in any way. Welcome to the Interview Sir/ Madam.

1. Explain the composition of the membership of the Production Units in your school?
2. Describe the activities that the production unit has engaged itself in.
3. Explain how the school promotes participation in the running of production units and ownership of goals set?
4. Describe how transparency and accountability is promoted in the running of production units in school?
5. Do the academic qualification and experience of a person in relation to the activities under the production unit matter when appointing who should be in charge of the production unit activities?
6. Describe the performance of production unit in your school? Is it impressive, good or undesirable?
7. How much does the school realize from the sales? And how can you explain the profitability of the production units?
8. From your own point of view is it worthy to allow the production units continue in schools and why?

9. Explain the challenges you are facing in the running of the school production unit?
10. Explain what you think should be done to enhance the performance of production unit in your school?
11. Explain the measures that you think can enhance the performance of production unit in your school?

Thank You For Your Participation.

Appendix III: Letter of Permission from the University to go and collect data

**UNIVERSITY OF ZAMBIA – ZIMBABWE OPEN UNIVERSITY
(UNZA-ZOU)**

Telephone: 26021-1-291777-78 Ext. 3500/ 0978/772249
Telegrams: UNZA LUSAKA
Fax: 26021-1-253952
Email: director.ides@unza.zm

P.O. Box 32379
LUSAKA, ZAMBIA

DATE: 18 / 02 / 2021

CHISHA PRISCILLAR

Dear Sir/Madam

RE: CONFIRMATION OF STUDY

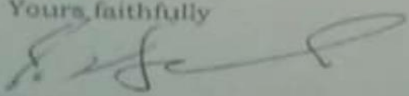
Reference is made to the above subject.

This serves as a confirmation that the above mentioned person of NRC No: 16761216511 and computer number 718000288 is a bonafide student of the University of Zambia in collaboration with Zimbabwe Open University (UNZA-ZOU).

The student is pursuing a Master of Education in Educational Management and he will be carrying out a research on AN ASSESSMENT OF THE PERFORMANCE OF PRODUCTION UNITS IN SCHOOLS: THE CASE OF SELECTED SCHOOLS IN LUSAKA DISTRICT.

Any assistance rendered to him will be greatly appreciated.

Yours faithfully



Prof. B. Namangala, PhD
DIRECTOR
INSTITUTE OF DISTANCE EDUCATION

