FACTORS AFFECTING TEACHING OF VOCATIONAL SKILLS IN SELECTED PRIMARY SCHOOLSIN SOLWEZI DISTRICT.

BY

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A Dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the degree of Masters of EducationinSociology of Education

THE UNIVERSITY OF ZAMBIA

LUSAKA

2013

DECLARATION

I, Adama Kazhila Yukani, do hereby declare that this dissertation is a product of my own effort, and that it has never been done before. The sources of all materials referred to in this report have been acknowledged. Any misrepresentation of information that would arise from this report is purely my responsibility.

Signed: .....

Date: .....

APPROVAL

This dissertation of Yukani Adama is approved as partial fulfilment of the requirements for the award of the degree of Master of Education in Sociology of Education, of the University of Zambia.

Examiners' Signatures

1.....Date.....2013

2.....Date.....2013

3.....Date.....2013

DEDICATIONS

To Christine and our children, education has no age limit; you will do much better than this. To God be the Glory.

ACKNOWLEDGEMENTS

Firstly, my thanks go to the University of Zambia for according me an opportunity to study with them. Profound thanks to my Supervisor Mr Henry J. Msango, and my Lecturers Dr O. Chakulimba, Dr K. Kalimaposo, Dr P.C. Manchishi, Dr S. Kasonde-Ng'andu and Dr B. Matafwali for their guidance. Thanks to the managers and teachers of Kikombe, Solwezi, Tunwangánai, Rodwell Mwepu, Kyapatala, Kifubwa, Kimale, Mushitala, Kimasala, Kimiteto, Kambanzhi, Kayonge, Kananga, Manyama, Kyansununu, Kyabankaka, Muyoya, Kapijimpanga, Mbonge and Mwajimambwe Primary Schools. The Principal, Lecturers and students of Solwezi College of Education are thanked too.

Sincere thanks to Mrs Judith Kapale, who had taken keen interest in helping me with advice throughout the Study. My dear wife Christine occupies a very special place in this project as she was always on my side to prop me up whenever I felt like giving up. All our children, Kutemba, Likoji, Kennedy, Kaluwazhi, Kema, Eddie, Kabwita, Muzhin'ga, Kutela and my friend Nkisu for understanding the importance of this journey undertaken at their expense. I am not forgetting my sweet granddaughter, Mapesho, who always cheered me up when things where down. Thank you all.

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ACRONYMS

CTS – Creative and Technology Studies

CSO – Central Statistical Office

DEBS – District Education Board Secretary

ESIP – Education Sector Investment Programme

MOESVTEE – Ministry of Education, Science, Vocational Training and Early Education

MOE – Ministry of Education

PEO – Provincial Education Officer

UNESCO –United Nations Education, Scientific and Culture Organisation

ZATEC – Zambia Teacher Education Course

ABSTRACT

The purpose of this study was to investigate the factors affecting the teaching and learning of vocational skills education (CTS) in primary schools of Solwezi district and North-Western Province in general. Emile Durkheim's Functional Theory and Paulo Freire's Critical Education Theory Approaches were employed to provide conceptual framework.

Studies made by many educationists have shown that the kind of education that the Zambian education system gives to learners at basic school level does not adequately prepare them for productive vocational lives in their adulthood as it is too bookish. Mwanakatwe (1974) confirms the dilemma as he observes that the general public in Zambia is seriously concerned about the large numbers of school leavers that roam the streets because they cannot find employment. Similar observations are made by Snelson (1974). This study was designed to find out factors affecting the teaching of vocationalskills in selectedprimary schools of Solwezi district.

The study targeted twenty primary schools and a College of Education as a sample for the whole district. This sample gave a total of 105 respondents who weredivided as follows: 40 serving teachers, 60 student teachers and 5 Lecturers. Information was received from respondents by means of questionnaires. Observations were made and pictures taken where possible. Responses from the study were grouped into emerging themes, anddata analysed using both the qualitative and quantitative approaches.

The Study found that while teachers at primary school level were eager to teach vocational skills through Creative and Technology Studies, primary schools had no tools, equipment, essential materials and specialised rooms for vocational skills education. Furthermore, the Learning Area's components, especially Home Economics and Industrial Arts, were not compatible, as the integration was not rationally done. Also the teachers' training was not adequate to fully prepare them for effective teaching of vocational skills and all components of Creative and Technology Studies (CTS).

Recommendations were made that MOESVTEE support teachers in areas of deficiencies such as:infrastructure,provision of tools, equipment and materialsto all primary schools. Revision of teacher training curriculum as well as the one for primary school would be ideal too.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

A well-functioning education system should be able to point to evidence of the personal incorporation by children of useful knowledge, reasoning ability, skills and values. However, this was not so with the Zambian basic education as its graduates lacked vocational and occupational skills. This was contrary to one of the Education Policy aims which posit the provision of general education in basic subjects, skills training and productive work (MOE, 1996). Teaching of vocation skills to pupils early in life is very important to their wellbeing and the development of the country, as vocational education offered a link between educational institutions and the world of work, (Munther, 1994 and Thompson, 1973). Unfortunately, the teaching and learning of vocational skills hadnot been effective in most primary schools. This situation called for a solution.

Great concern has been raised by society over the lack of vocational and occupational skills by the children that come out of the Zambianeducation system, especially at primary school level(Times of Zambia, February 14, 2013). Various stake holders including teachers, parents and even government has expressed their great concern with the growing numbers of unskilled youths on the streets. To address this problem government came up with policies that were intended at facilitating the provision of general education that included vocational skills and productive work so as to enable pupils achieve a standard of functional education which would equip them to live productive lives and possess occupational skills that would make them productive citizens (MOE, 1996). At the primary school level, it was anticipated that, this could be achieved through Creative and Technology Studies (CTS). Creative and Technology Studies (CTS) is an integrated subject composed of Home Economics, Industrial Arts, Art and Design, Music, and Physical Education, and was expected to be taught to all pupils at the primary school level (MOE, 2003).

In spite of the good intentions of the government and anticipated rewards that could be achieved through the acquisition of vocational and occupational skills by pupils the teaching and learning

of vocational education, had not been effective. In fact it had been a total disaster in the primary schools of Solwezi District.

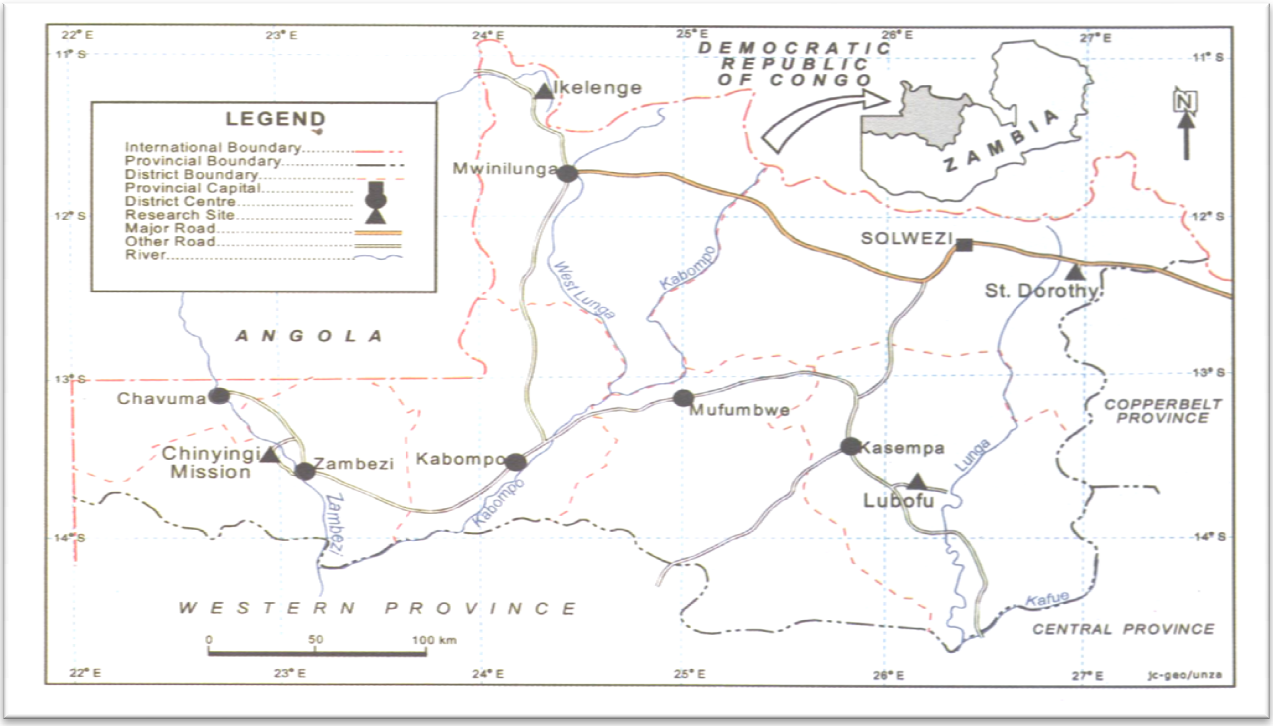
Admittedly, some studies had been undertaken on vocational and occupational education, but these were mainly focused either on the secondary school or post-secondary school levels. Apart from Banda's (1981) Study on the problems of primary school-leavers, there appears to be a dearth of information on the problems of teaching and learning of vocational and occupational skills in primary schools. It was against this background that this study was conducted so as to ascertain the effectiveness of the teaching and learning of vocational and occupational education at the primary school level, in Solwezi district.

1.1.2 Background to the target Site

1.1.2.1 Geography

Solwezi district, the site of this Study, is the Provincial Headquarters and also the biggest and most urbanised of all the eight districts in the North-Western Province of Zambia. The North-Western Province is between longitudes 23° and 28° East and latitude 10° South of the Equator. The Province is the largest province in the country as it covers about 125, 826 square kilometres. The North-Western Province shares international boundaries with the Democratic Republic of Congo (DRC) to the North, and the Republic of Angola to the West. Internally the Province shares borders with the Copper-belt Province to the East, Central Province to the South-East, and Western Province to the South. The Province comprises of eight districts namely: Chavuma, Ikeleng'i, Kabompo, Kasempa, Mufumbwe, Mwinilung'a, Solwezi and Zambezi.

Solwezi district shares an international boundary with the Democratic Republic of Congo (DRC) to the North, the Copper-belt Province to the East, and district boundaries with Mwinilung'a district to the North West and Kasempa district to the South. Solwezi district is located between 26° 21' East of the Meridian and the latitude of between 12° 20' South of the Equator, and it covers a total area of about 30,261 square kilometres.



Source: UNFPA Zambia

Figure 1.2.1. Map of North-Western Province showing the position of Solwezi District

1.1.2.2 Population

The population of North-Western Province, in general and of Solwezi District in particular may not be exactly known as by 2012. This is due to the massive influx of people that had come into the Province in search of jobs in the new mines that were mushrooming all over the region. Solwezi in particular had two large operational mines at Kansanshi and Lumwana, and an upcoming one at Kalumbila in Chief Musele's Chiefdom, to the North-West of the district respectively. However, according to the Macmillan High School Atlas for Zambia, the provincial population in the year 2000 was at 610, 975 people while that of Solwezi district in the same year was 204, 301 people (Macmillan,2005).

1.1.2.3 Economy

The economy of the Province is mainly subsistent as it is quite a rural Province. The main stay of the people is mostly farming and fishing, in places that are near rivers. A considerable number of people are also honey gatherers. With the coming on board of big mines such as Kansanshi, Lumwana and Kalumbila mines, many young people have found themselves working for the

mines. However the majority of the people are still subsistent farmers and there is also a good number of civil servants.

1.1.2.4 Education in the province

North-Western Province is the Province that has the least number of schools in Zambia. The 2005 Education statistical Bulletin shows that the province had only 580 schools and 1 School for Continuing Education, by 2005. This number, 580, consisted of 398 Basic schools, 142 Community Schools, 21 Interactive Radio Instruction (IRI) Centres and 19 Secondary schools (MOE, 2006). The number of schools in the Province was so small because the Province did not have many Grant Aided and Private or Church Schools. The reason is historical as the Province had had no missionaries that had the education of the indigenous people at heart. The Province also had three Colleges namely, Solwezi College of Education, Solwezi Trades Training Institute and the Mwinilung'a Trades Training School (CSO, 2004). There were also three Nursing Schools at Solwezi, Mukinge and Kaleng'i respectively.

1.1.2.4.1 Pupil Enrolment

Pupil enrolment by March 2012 for the whole Province was as follows: Secondary schools had a total of 17,796 pupils broken down into 10,248 boys and 7,548 girls; Primary schools had a total population of 193,851 pupils, broken down into 100,893 boys and 92,958 girls; Community schools had a total of 40,558 pupils broken down into 20,326 and 20,232; and Private schools that had a total of 2,329 pupils broken down into 1,054 boys and 1,275 girls (MOESVTEE, 2012).

The Province had the highest Dropout Rate in Grades 1- 9 in the whole country in previous years.

1.1.2.4.2 Dropout Rate

The North-Western Province was the Province that had the highest pupil dropout rate in the whole country in the previous years. As illustrated by Table 2.1, the rate of about 4.50% is indeed the highest (MOE, 2006).

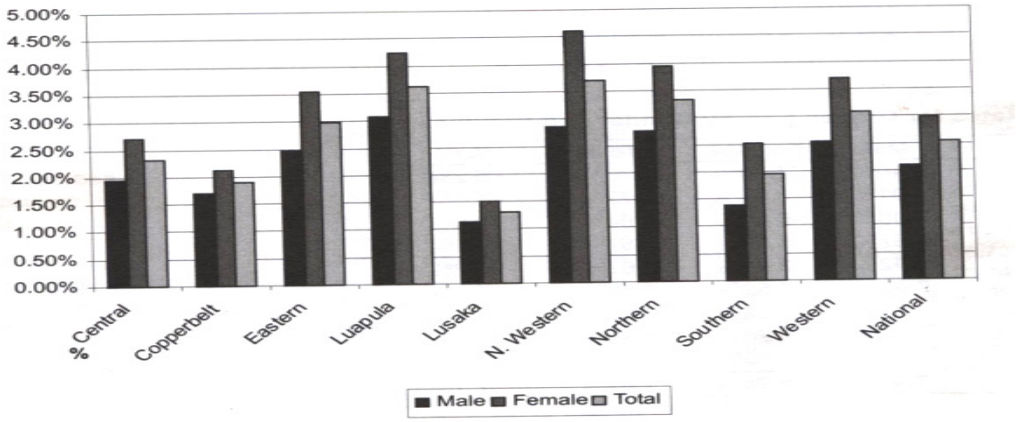


Table 1.1. Dropout Rate in Grades 1-9 by Province

This Dropout rate is made worse by the fact that the majority of learners that mostly drop out are female. This being the case, the implications are that these girls that drop out of school between Grades 1 and 9 actually join the older community as mothers who have no vocational skills that would soundly help them to contribute positively to their communities. Table 2.2 shows the national Dropout Rate by Gender.

	Male	Female	Total	% Ch.
Central	1.94%	2.71%	2.31%	0.6%
Copperbelt	1.69%	2.12%	1.91%	-17.1%
Eastern	2.46%	3.56%	2.99%	-6.5%
Luapula	3.08%	4.24%	3.63%	-11.4%
Lusaka	1.12%	1.50%	1.32%	-40.1%
N. Western	2.86%	4.61%	3.70%	-26.1%
Northern	2.76%	3.95%	3.32%	-7.8%
Southern	1.39%	2.52%	1.94%	-15.8%
Western	2.53%	3.69%	3.09%	-3.5%
National	**2.09%**	**2.98%**	**2.53%**	**-12.9%**

Table: 1.2. Dropout rates for Grades 1-9 by Gender and Province (Source: 2006MOE)

The statistics above simply go to prove that there is great need for the primary schools in North-Western Province, and indeed the whole nation, to take keen interest in the teaching of vocational skills. According to the Ministry of Education, one of the general outcomes of

Creative Technology Studies is to *"Use practical approaches to solve practical tasks based on design process; experimentation; exploration; production and evaluation."*(MOE, 2003)

Based on the curriculum outcome cited above it is obvious that the youngsters that are leaving school between Grades 1 and 9 would be much more useful in their communities if they were helped by the education system through the learning of vocational skills (Creative and Technology Studies). It is also very important that schools take cognisance of the major goal for basic education in Zambia which is to provide each pupil with a solid intellectual, practical and moral foundation that will serve as a basis for a fulfilling life.

The teaching of vocational skills in our primary schools, if handled correctly, can go a very long way in helping to reduce the number of the unskilled, idle youths that are not productive, in our communities. What then could be the causes for this dilemma? Could it be that the Zambian primary education curriculum has failed to live up to its expectations or could it be that teachers were not adequately prepared to teach vocational skills? Or were they just not interested in teaching the vocational skills? How prepared were primary schools, did they have equipment and relevant facilities for teaching vocational education? These and many questions beg for answers. However, because of the dearth of information on the teaching and learning of vocational skills at primary school level, it was imperative that a study on the effectiveness of the teaching of vocational skills at the primary school level be conducted.

1.2 Statement of the Problem

The provision of education that taught vocational and occupational skills has been very much espoused by the Ministry of Education in its policy documents on education, and in the integrated Education Sector Investment Programme (ESIP) (MOE, 1977, 1996). Despite government policy, teaching of vocational skills in primary schools, especially in Solwezi district, appears to be ineffective, as children, who havedropped out of the school system, have no vocational or occupational skills.This has raised great concern within the community about the future of their children. The problem was made serious by the fact that the primary school sector had vastly expanded and with it the numbers of young school dropouts either at Grade 7 or Grade 9 levels, who left school without any vocational or occupational skills. This in turn made it very difficult for them to contribute meaningfully to their communities. Apparently, not many studies have been conducted on this dilemma, at the primary school level. This study therefore, is

an attempt this knowledge gap on the factors that affecting the teaching and learning of vocational and occupational skills in selected primary schools of Solwezi district.

1.3 Purpose of Study

The study sought to find factors affecting the teaching and learning of vocational and occupational skills in selected primary schools of Solwezi district.

1.4 Research Objectives

The Objectives of the study were:

1. To investigate the extent to which the current primary school curriculum was addressing vocational and occupational skills education.
2. To determine the nature of vocational skills education offered in primary schools.
3. To assess how well equipped primary schools were for the teaching of vocational and occupational skills.
4. To find out the effectiveness of training forprimary school teachers in teaching vocational and occupational skills.

1.5 Research Questions

The Research questions were:

1. To what extent is the primary school curriculum addressing vocational and occupational skills education?
2. What is the nature of the vocational skills taught in primary schools in Solwezi district?
3. How well equipped are the primary schools in Solwezi district to teach vocational and occupational skills?
4. Does the training for primary school teachers adequately prepare them to effectively teach vocational and occupational skills at the primary school level?

1.6 Significance of the Study

At the time when the problem of youth unemployment is so big and threatening in our country, it is hoped that the findings of this study would be useful to the policy makers, curriculum planners, education managers, primary school teachers' trainers, educational standards' officers and other concerned stakeholders. It was further, hoped that this study would enlighten them on the predicament primary school teachers found themselves in and come up with ways by which teachers could be helped to effectively teach the vocational and occupational skills to their pupils.More importantly the study adds to the limited literature on this subject. This was true more especially that there had been no study that had ever been conducted on the subject which students and researchers can exploit. The Ministry of Education would also use the findings of this study to design and develop appropriate programmes for in-service training targeted at the teachers of vocational skills education in primary schools.

1.7 Theoretical Foundation

The study was based on two theoretical foundations that explain the effects of education on an individual and the need for inclusiveness since every individual had a role to play in society. The Functional Theory Approach as elucidated by Emile Durkheim posits that the primary function of educationis to socialise new generations to overcome their egoism and to become productive members of society (Pareliusand Parelius, 1978). Functionalists view education as the provider of basic skills such as literacy and numeracy, and the most specialised technical knowledge that modern methods of production and management demanded. This approach also encourages a strong commitment towards self-discipline, hard work and achievement, attitudes that were conducive to industrial success and innovation.

On the other hand the Critical Education Theory Approach by Paulo Freire and others, honoured human diversity, including the variations and ambiguity in the way different people learned and saw the world. The theory stressed the importance of theories relevant to local situations; the connections between theory and practice; and also democratic ideas. It called for respect and understanding of human differences (Ballantine and Hammack, 2009). This theory helped to empower people, especially those in society who were less powerful and marginalised (Neuman, 2011). Furthermore it was very important in the teaching of vocational education in that it

espoused inclusiveness of all learners regardless of their situation in life and academic prowess. All learners have the potential to excel and contribute positively to their communities, depending on their ability and talent.

1.8 Delimitation

The study confined itself to selected primary schools in Solwezi district only.

1.9 Limitation of Study

The following were, therefore, some of the limitations of the Study:

Timewas limited. The short period availed for the research was not enough to conduct an in depth study as the Third Term was also an examination period in Primary and Basic schools; Since the questionnaire was the major tool for data collection it was difficult to get the responses from some respondents within the planned time frame. The researcher had to go back to some schools just to recover the completed questionnaires.

1.10 Definition of Terms

Vocational education: - the training that gives knowledge and skills that one needs in order to do a particular job.

Basic School:-This is a school comprising Grade 1 to 9 classes. However, even those schools that have only Grades 1 to 7 are within this category.

Primary School: - This is a school that offers elementary education from Grade 1 to Grade 7 only.

Practical Subjects: - These are subjects that provide learners with hands-on and minds-on experiences.

Creative Technology Studies:-The subject through which vocational skillsare taught at primary school level. It consists of Industrial Arts, Home economics, Art and Design, Music, and Physical Education.

Entrepreneurship Education: - This is the type of education which instils entrepreneurial skills to learners.

Learning Area: - A study discipline consisting of learning experiences drawn from different subjects.

Summary

The incorporation by children of useful knowledge, reasoning ability, vocational skills and values was the general aim of basic education in Zambia. Unfortunately these aims, despite government putting relevant policies in place, had eluded the education system, especially at primary school level, in Solwezi district. Very few studies on this phenomenon had been undertaken in Zambia. This, therefore, called for the need for a study to help ascertain the effectiveness of the teaching and learning of vocational and occupational education at primary school level in Solwezi district and theNorth-Western Province in general. Clear research objectives and focused research questions guided the study in collecting relevant data.

The study used two theoretical approaches, namely the Functional Theory by Emile Durkheim and the Critical Education Theory by Paulo Friereforguidance because they took into consideration human diversity and the potential for all humans to excel and contribute positively to their communities. However, the study was not conclusive as it had delimitations and limitations.

The next chapter looks at related Literature. It starts by first identifying the research site, and then goes further to conceptualise vocational education before looking at its history in Zambia. This would help in the establishment and understanding of the problem under study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In Zambia the issue of school leavers that have no survival skills is becoming a very big problem. The problem emanates from the fact that while the various government education policy documents, including the Basic Education Curriculum Framework, mention the need for vocational education for learners (MOE, 1977, 1996, 2000), very little emphasis is placed on its implementation. According to Snelson (1974) the problem of unskilled youth was not new to the Zambian society as it was experienced in the past, too. Even during the Northern Rhodesia period, the issue of school leavers was a burning problem to which the colonial government wanted to find a solution. This trend has continued following the large numbers of school leaverswho have been offloaded from the education institutions at the various levels of our education system. Mwanakatwe (1974) also confirmed this observation. The general public in the North-Western Province of Zambia and Solwezi district in particular, is seriously concerned about the large numbers of unskilled school leavers roaming the streets because they cannot find employment. With quality education that prepared a child holistically those leaving school would be more self-confident to fend for themselves, as they would be equipped with a good measure of vocational skills in either agriculture or indeed any other technical area.

2.2 Vocational Education

All children had the potential for creative expression. And almost all loved to make things and the benefits derived from doing so was much in the making as in the end product. This creative expression can definitely be learned through vocational skills education (Webbo, 1990).

Traditionally, vocational education refers to studies in area of technology, applied sciences, agriculture, business studies, industrial studies and visual arts. However, this keeps changing and vocational technical education has been assuming different meanings and purposes due to global demographic, social, technological, economic, and political developments (Boateng, 2012).

According to Apaguand Andural(2007) the term technical and vocational education is used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

The need for vocational education

According to the Ministry of Education (1996), the general rationale of providing basic education was the provision of general education in basic subjects, skills training and productive work. This would help in enabling pupils to achieve a standard of functional education which would equip them to live productive lives and possess occupational skills that would make them productive citizens. This, indeed, is in line with Emile Durkheim's views on the purpose of education which is to arouse and develop in the child a certain number of physical, intellectual and moral states which are demanded of him both by the political society as a whole and by the specific environment for which he is particularly destined(UNESCO,2001).

Education generally aims at including knowledge, attitudes, skills, values, and beliefs into an individual to assist him/her achieve a reasonable degree of competence in the various facets of everyday life. Its main function is the provision of appropriate skills, abilities and competence of both mental and physical nature as necessary equipment for the individual to live productively in the society. Vocational education provides activities for learning by doing and enables individual differences to be catered for (Okocha, 2009). Schools, therefore, have both the obligation and responsibility to provide learners with the training necessary to allow them to lead fulfilling lives in future and cope with their daily lives (Munowenyu, 1999).

Lewin, quoted by Boateng (2012) reported that, there were now five justifications for governments worldwide to invest in vocational technical education. These are: (1) To increase relevance of schooling by imparting individuals with skills and knowledge necessary for making the individual a productive member of the society; (2) To reduce unemployment as a result of provision of employable skills especially to the youth and those who cannot succeed academically; (3) To increase economic development due to the fact that it improves the quality and skill level of the working population; (4) To reduce poverty by giving the individuals who participate access to higher income occupations; (5) To transform the attitude of people to favour occupations where there are occupational prospects or a future.

Indeed the inclusion of practical and vocational skills education in the curriculum is very important for the educational development of the learner as they help in developing certain qualities in pupils. Powers of observation, attention to details, the need for vigilance and persistence are qualities that are greatly enhanced by this kind of education, (MOE, 1996). More importantly, as the subject to be taught relate to the domestic life and commercial activities of the communities served by the school the learners would, therefore, be properly grounded in readiness for the more sophisticated and economically useful skills later in life.

According to Thompson (1973) vocational education helped in the process of growth and development that enabled an individual to find a satisfying work role and to become established in an occupation. This kind of education helps in the growth and development of the people as it provides experiences, visual stimuli, effective awareness, cognitive information and psychomotor skills. Vocational education being a formalized vehicle of any growing society helps in facilitating the allocation of occupational roles as it is an extension of those social mechanisms that differentiate persons within the community and prescribe the types of stations and roles that they are expected to play or assume.

Technical and vocational education performs three major functions. According to Munther (1994) vocational education enlarges vocational horizons by serving as an introduction to the world of technology and its products through the exploration of materials, tools, techniques and the process of production, distribution and management as a whole and broadens the learning process through practical experience; it orients those with interest and ability towards technical and vocational education as a preparation for an occupational field or towards training outside the formal education; and it promotes in those who will leave formal education at whatever level but with no specific occupational aims or skills, attitudes of mind and ways of thought likely to enhance their aptitudes and potentials.

Vocational and occupational education also inculcates in the learner a spirit of entrepreneurship. And when one looks at the socio-economic trends in Zambia, there is no choice but to develop strategies which facilitate economic empowerment. Vocational and occupational education and training are excellent vehicles for implementing an entrepreneurial strategy. According to Ronam(1998), when learners are introduced to concepts and practices of entrepreneurship early in life, they develop a positive attitude towards entrepreneurship which becomes a motivation for them to achieve success. He suggests that starting with the primary school system, the

curriculum should be oriented towards what is termed an internal locus of control. The text books used by pupils should contain stories and other materials on heroes who overcome odds and achieve their objectives. The strategy will be focused on inculcating self-reliance, determination, and perseverance.

Entrepreneurship should be classified with numeracy and literacy as the core skills for all learners. All three subjects have the potential to empower the person. There is need therefore, for educationists to take vocational education and productive activities as essential components of the school curricular, second in importance only to the three 'Rs' since human reason finds expression not only in language and mathematics but also in various constructive activities.

Through vocational education a learner is helped to develop various skills such as thinking, feeling and doing, through creative activities. The learner also acquires self-knowledge, self-confidence, self-discipline and hence develops his personality in full. He furthermore recognises, observes, study, analyses and appreciates the world in its modern, scientific and technological aspects. Character building is also enhanced as the child builds up a sound moral character and acquires good working habits as well as useful skills (Webbo, 1990).

There is no doubt, too, that in this type of education, learners find satisfaction and joy in learning. A lot more advantages abound in this type of educational programme in the course of learning, such as willingness and eagerness of learners to learn and focus talent efforts upon the critical domestic issues of development. This is so because in vocational education programmes, there are less stiff formalities in the classroom, and this provides opportunity for learners to sit together and recognize the peer group influence on learning and by so doing learning how to work as a group.

Who should be given vocational and occupational education?

According to Okocha, it is the role and task of Primary Schools to provide vocational education. She notes that primary school education will continue to prepare most children for life. In this context she suggests that the primary school curriculum be weighted more heavily on preparing the majority of the children for life since primary education may turn out to be terminal for most children in that category. She further suggests that the primary school curriculum should provide, amongst other things, encouragement of aesthetic, creative and musical activities, the teaching of local crafts, domestic science and agriculture (Okocha, 2009).

In Ghana, for instance, pre-vocational type of vocational technical education occurs at the basic school level. The aim here is to expose pupils at the basic education level to a range of practical activities in the vocational field in order to make them familiar with, and stimulate their interest in vocational subjects; this gives pupils at this level equal opportunity to choose their future careers in either the vocational technical or general field. Also, it equips them with basic occupational skills that will enable those who do not seek further education to enter into gainful paid or self-employment in industry, agriculture and commerce (Boateng, 2012). Ronan (1998) suggests that vocational education should start with the primary school system.

Bishop (1988), however, in addition to suggesting that the basic school child be taught vocational skills added on another dimension of inclusiveness. He observed that there were also those learners that found academic learning difficult and in the process their self-esteem suffered. If something did not change, they simply dropped out of school. Vocational education, he emphasizes, offer such learners a new forum in which to try their talents, a forum in which success is possible and effort is rewarded. Dropout prone learners would actually be persuaded to stay in school, if they were offered an opportunity to develop pride and a route to something better than an inferior job. In fact, for a good proportion of learners, a purely intellectual programme of schooling could be counterproductive, frustrating and even inhumane Munther (1994). It may not be farfetched to believe that a correlation exists between juvenile delinquency and lack of practical incentives in our schools, especially here in Zambia.

2.3History of vocational and occupational education in Zambia

The history of vocational training in Zambia extends from as far back as the first quarter of the twentieth century. This history can be divided into phases. There is the phase of the Christian missionary involvement in the provision of technical education and vocational training, dating from about 1900 to about 1925; the phase when the colonial government got involved in the provision of vocational education, from about 1925 to the time of independence.

2.3.1 Vocational Education under the Missionaries

The early Christian missionaries were the pioneers of technical education and vocational training. The missionaries' objective was to spread the gospel. The little education which was provided was to make the converts read the scriptures for themselves. In addition to this, they provided some basic skills in carpentry, building, tailoring, typewriting and agriculture.

Mwanakatwe (1974) states the following as some of the reasons for offering these basic technical skills, to enable converts live self-respecting lives as Christians; to help in the building of schools and houses for the missionaries; and to enable the trained Africans contribute to the development of their country.

2.3.2 Vocational Education under the Colonial Government

When the colonial government took over the running of the colony from the British South Africa Company in 1924, it continued to provide technical education and vocational training by supporting missionaries through the Native Education Department. This continuity was necessitated by the fact that the colonial government knew that the development of the country depended on the availability of local men and women with adequate skills in building, carpentry, blacksmithing and agriculture. It as well wanted to raise the standards of living of the Africans.

The colonial government established the most important institution in technical education and vocational training in February 1934 in Lusaka, called Central Trades School. It later came to be known as Hodgson Technical College, now known as David Kaunda Technical High School.

The primary school level was not left out in the development of vocational education. According to Snelson(1974), towards the end of the 1940s the colonial government, after noticing the inadequacy in the primary school curriculum, decided to add one more year to the Upper Primary course, of the indigenous people. Concern had been expressed that the Upper Primary Course was too academic and that the Standard Six graduates were reluctant to work with their hands. Therefore, because of the faith that the Department of Education and the Advisory Board had in the character-improving effects of practical work on the primary school pupils, the syllabus of Standards V and VI was to be covered in three years instead of the normal two years. The extra year was devoted to practical training.

2.3.3 Vocational Education after independence

In 1964 Zambia got independence from the British and inherited an education system established by them through their colonial policy, but dropped the emphasis on vocational education. However, around 1977, it became apparent to the new Zambian government that a social problem was brewing up. There emerged a situation where urban centres became infested with large numbers of unemployed youth. This created frustration in the youth and a lot of resentment, thus presenting a growing threat to social and economic stability. The government

then came to the realisation that one way of solving such a problem was to reform the education system, and provide a system that would give opportunities to all based on their interest and abilities so as to acquire intellectual excellence and practical skills (MOE, 1977). Production Units at primary schools became encouraged, but, unfortunately, quickly died out.

In his Study on the problems facing primary school leavers in Zambia, Banda (1981), observed that despite government's efforts to produce school leavers who were equipped with relevant skills for employment, there was very little evidence to show that the efforts to reform the school curriculum had made any significant contribution to mitigate the plight of the primary school leavers. He however, observed that when the primary school effort was complimented with small community based training schemes, primary school leavers benefited by acquiring the necessary skills, which enabled them to play a useful role in the economy (ZER, 1981).

Years later, government through the Ministry of General Education and Culture in collaboration with the Ministry of Higher Education (1988) reaffirmed the educational values of practical or vocational education. It advocated for practical education and justified it by stating that apart from contributing to general knowledge and understanding, practical education provided additional opportunities for the development of a variety of skills and attitudes which were important objectives of an education curriculum. In 1996 the Zambian Government produced another policy document, *"Educating Our Future"* in which it stated that education must end a person into a self-supporting citizen for it to be perceived as having achieved its purpose (MOE, 1996). The need for vocational education was re-emphasised. One strategy for achieving this, in line with Integrated Education Sector Investment Programme (ESIP), was to increase the vocational relevance of the curriculum for in-school education, and include entrepreneurial education as a component from grade 5 onwards (GRZ, 1996).

Through the Basic School Curriculum Framework, the Ministry of Education (2000), set its learning objectives for both lower and middle basic levels as to facilitate the development of each pupil's imaginative, affective and creative qualities; to develop good habits for further learning and training, and to promote the qualities inherent in a self-employed, self-reliant person; to equip the learner with the necessary academic competencies and life skills needed for further studies and for vocational training, including basic computer literacy; to prepare the learners for a productive life as a citizen of Zambia, contributing constructively to the development and to democracy; and to develop a spirit of entrepreneurship and self-reliance, as

well as the life-skills necessary to assume control of one's private and professional life as an adolescent and adult.

This, indeed, is in conformity with Article 1.1 of the *World Declaration of Education for All*which set the scope of basic learning needs that, every person-child, youth and adult shall be able to benefit from educational opportunities designed to meet their basic needs. These needs comprise both essential tools and the basic learning content required by human beings to survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives (Kelly, 1999).

Summary

In Zambia attempts to provide vocational education have been made since the introduction of formal education by the missionaries and later the colonial government. After independence the various Zambian governments have also enacted policies to this effect. The current government of the Patriotic Front (PF), just as its predecessor, the Movement for Multi-party Democracy (MMD), has even committed itself to the United Nations (UN) Article 1.1 of the World declaration of Education for All, which emphasizes a basic education that would enable a person to survive, develop full capacity to live and work in dignity and to participate fully in national development thereby improving quality of their lives.

In spite of the various governments' pronouncements on the need for vocational education for learners at primary school level, no efforts have been made to effect the implementation of such policies. This has negatively affected North-WesternProvince in general and Solwezi District in particular as the Province had the highest dropout rate at primary and junior secondary school levels.Vocational education being a formalised vehicle for allocation of occupational roles of any growing society, should start with the primary school system since primary education turned out to be terminal for most children in that category.

The next Chapter looks at various Methodologies that were employed in this Studyto help come up with relevant data that helped to give an insight on the various factors that affected the teaching of vocational skills at the primary school level.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

In the previous Chapter the study looked at various related literature that discussed the history and issues of vocational education at different levels and different periods in time in Zambia and some other parts of world. The research site was also highlighted so as to give a clear perspective of the problem at hand.In this Chapter, the methods used in carrying out investigations about the subject matter are discussed. These include the research design, target population, sample size, sampling procedure, and data collection procedure and data analysis.

3.1 Research design

The study used both qualitative and quantitative research designs for validity and richness of the findings. However, the qualitative design was used to a larger extent while the quantitative design was used to a lesser extent. The study was a case study that looked at the factors that affected the teaching of vocational skills at Primary school level at selected schools in Solwezi district.

3.2 Location of the Study

Basically, the study was conducted in Solwezi District. The study involved twenty(20) primary schools divided as follows: Eight(8) schools from the urban area, four (4) schools from peri-urban and another eight(8)from rural areas. One College of Education was part of the study site too.

3.3 Target Population

The target population for this study were teachers and head teachers in selected primary schools of Solwezi district. Trainee teachers and primary school teacher trainers at a College of Education were involved as well. This was tohelp inthe establishment of the fact whether quality

skills education was taking place or not in relation to pupils' and recently trained teachers' performance in schools during and after training.

3.4 Research Sample

The study comprised a total of one hundred and five (105) respondents. The sample size distribution was as follows: 40 teachers randomly selected from twenty (20) identified primary schools from urban,peri-urban and rural areas- 2 teachers per school;60 trainee teachersfrom a College of Education selected as follows- thirty (30) first year and thirty (30) second year students; and 5 Senior Lecturersfrom a College of Education. These were drawn one from each of the five contributory Study Area components that make up Creative and Technology Studies (CTS) at primary school level. At Primary Teachers' Colleges of Education these fall under Technology Studies and Expressive Arts respectively.

3.5 Sampling Procedure

Stratified sampling technique was used for identifying schools (urban, peri-urban and rural).The Stratified random sampling technique was also used to select respondents like trainee teachers because such respondents needed to come from homogeneous subgroups like equal numbers of both first and second year trainee teachers. As it is the procedure of stratified random sampling, simple random sampling was further utilized in arriving at the actual number of respondents that were needed in each subgroup (stratum). Stratified random sampling helped in ensuring that the subgroup within the target population of students and serving teachers were represented and also unbiasily included in the sample size.

ThePurposive sampling technique was used to select respondents like primary school teachers and college Senior Lecturers. Purposive sampling was used simply because the above cited subjects were the target group of people believed to be key- informants in terms of providing relevant and reliable information related to the study, due to their experience in teaching at primary school level and training background.

3.6 Research Instruments

The study aimed at collecting both Primary and Secondary data from the field through the use of questionnaires, interview guide, direct and unstructured observation guides and content analysis of Authentic records like School enrolment Records and Staffing Lists and documents related to the study.

3.7 Data Collection procedures

Before the actual data collection process commenced, the Researcher got permission from the office of the Provincial Education Officer, North-Western Province and also from the District Education Board Secretary of Solwezi District. The above procedure was made much easier by the introductory letters that were given to the researcher from the office of the Assistant Dean of Post Graduate Studies of the University of Zambia and the Ministry of Education, Science and Vocational Training and Early educationheadquarters.Thereafter, the Researcher started working with the target sample size.

Primary data were first and foremost collected through the use of questionnaires administered to forty(40) serving teachers from twenty(20) sampled Primary schools scattered around Solwezi district. Sixty(60) trainee teachers from the College of Education were also administered to. These were divided according to cohorts as follows, thirty (30) First Year students and another thirty (30) Second Year students. This was hurriedly done as both the College of Education and schools were busy preparing for various end of year examinations (October-November, 2012).

Questionnaires werealso administered toother key respondents such as the five (5) Senior Lecturers from the five contributory subjects' areas of Industrial Arts, Home Economics, Art and Design, Music and Physical Education at the College of Education. These Senior Lecturers were picked at random. Unstructured interviews were conducted with various Head teachers of the sampled primary schools.

Direct observation was also conducted and photographs taken to further amplify the data.

Secondary data were also collected from available authentic School reports and programmes. Related literature to the Study, Examinations Council of Zambia past examinations papers and results analyses were utilised for the purpose as well.

3.8 Data Analysis

Both quantitative and qualitative data analysis techniques were used to synthesize the collected data. Basically data from Interview guides and Observation Guides were analysed through thematic analysis where major themes were meaningfully interpreted. Data from questionnaires were analysed using Statistical Package for Social Sciences (SPSS) which generated frequency tables and percentages.

Summary

This study employed the case study research design as it only targeted teachers in selected primary schools of Solwezi district and some trainee primary school teachers. The main technique for data analysis wasqualitative; however, to ensure reliability and validity of the findings, both qualitative and quantitative techniques were used. Both random and purposive selections of samples were also employed in selecting respondents and schools for study. The structured Questionnaire and unstructured observations were employed too, and data analysed manually through the coding of themes that emerged from the data. Chapter 4 of the research report gives a presentation of the data thatwere collected.

CHAPTER FOUR

DATA PRESENTAION

4.0 Introduction

This Chapter presents the findings of the factors that affected the teaching of vocational and occupational skills in Primary Schools.

In gaining entry to the site, the researcher got permission from the Provincial Education Officer (PEO), and the District Education Board Secretary (DEBS).Permission was sought also from Head teachers of the schools concerned and from the Principal of the College of Education selected. The 20 sites were all primary schools.The only Teacher Training College in the region was also included in this study as it was the major source of primary school teachers within the North-Western Province. All the schools that were involved werevisited. For the distribution of schools by location see the table below.

Table 4.1. Distribution of Sites by location

URBAN	PERI-URBAN	RURAL	TOTAL
8	4	8	20

The sites had considerable differences in terms of population for both teachers and pupils. Urban and peri-urban schools tended to have exaggerated populations of both. However, some rural primary schools, more especially, in Solwezi West had very huge populations due to the mining activities at Lumwana area. Unfortunately, the school infrastructure had not correspondingly grown, and the area was still very rural. For the sake of standardising the responses, the researcher did not consider the size of the school as it was obvious that each school regardless of the size had trained teachers. Each school therefore was given only two questionnaires for two respondents only.

The researcher collected data from 105 participants as follows, 40 trained and serving teachers, 60 student teachers and 5 teacher trainers.

4.1 Demographics

It is very important here to present Bio data so as to establish the type of respondents that took part in the study.

4.1.1 Gender of Respondents

The total number of respondents was 105 and the figures below show theirdivision by gender. As can be seen from the figures, the gender of the respondents was almost equally divided about 53(50.5%) respondents, were male, while 52(49.5%) respondents, were female.

Table 4.2. Respondents by gender

Gender	**Responses**	**Percentage**
Male	53	50.48%
Female	52	49.52
Totals	**105**	**100%**

The selection of respondents by gender was not by design but purely coincidence as the leaders in the involved institutions independently chose who to involve in the study.

4.1.2 Professional qualification of respondents

Respondents were further asked to indicate their highest professional qualifications. As can be seen from the table 4.3 below, out of 105 respondents, 60(57.14%) of the respondents were Grade Twelve School Certificate holders(these were the trainee teachers), 4(3.81%)(all Senior Lecturers) indicated that they were Bachelor of Education degree holders while 1(0.95%) indicated being a holder of a Master in Education degree. 21(20%) said that they were holders of Primary teachers' diploma, and 19(18.10%) indicated that they were Primary teachers' Certificate holders.

Table 4.3. Respondents' qualification

Qualification	Responses	Percentage
Master in Education	1	.95%
Bachelor of Education	4	3.81%
Diploma	21	20%
Certificate	19	18.10%
Grade 12	60	57.14%
Totals	**105**	**100%**

It is very clear from the above table that the majority of the serving respondents were holders of Primary teaching qualifications, Certificate, Diploma and degree levels. The trainee teachers were all Grade Twelve School Certificate holders and had all spent at least three Terms in the Primary Teachers' Training College. They were therefore qualified to give credible data on the teaching and learning of vocational skills at primary school level. This has been pointed out because the qualifications of the teaching staff and the trainee teachers was a key factor to the promotion and further more attainment of quality vocational skills education in our schools.

4.1.3 Length of service in teaching

Respondents who were in active service at primary school level were further asked to indicate their length in service as teachers. Out of 40 respondents 14(35%) indicated that they had been teaching for a period between 1 and 5 years, 11(27.5%) said they had been teaching for a period between 6 to 10 years, 7(17.5%) between 11 to 15 years, 4(10%) responded that they had been serving for a period between 16 to 20 years yet still another 4(10%) indicated that they had been in service for a period between 20 and 25 years. As for the trainee teachers all 60 had been in College for a period of 3 Terms and above.

Table 4.4. Length of service in teaching

Period of Service	Responses	Percentage
1 – 5 years	14	35%
6 - 10	11	27.5%
11- 15	7	17.5%
16 - 20	4	10%
20 – 25	4	10%
Totals	**40**	**100**

From the above information it is clear that both the serving teachers and trainee teachers had enough experience on vocational skills education. They were therefore qualified to give credible data on the teaching and learning of vocational skills at primary school level. This has been pointed out because the experience, whether at college or in schools, of the teaching staff and the trainee teachers is a key factor to ascertaining the status of vocational skills education in our schools.

4.2 Extent to which the current primary school curriculum addressed vocational and occupational skills education.

The teaching of vocational and occupational skills is addressed in the current primary school curriculum. Creative Technology Studies (CTS) was the learning area where the following subjects were integrated: Industrial Arts, Art and Design, Home Economics, Physical Education and Music. This learning area emphasizes developing creative, analysis, problem solving and investigation skills in learners. It is in this learning area where learners were expected to acquire practical skills which were useful to their future lives(MOE,2003).

The teaching and learning of Creative and Technology Studies (CTS) was supposed to run from Grade 1 through to Grade 7 in all primary schools in Zambia. However when asked if they taught Creative and Technology Studies(CTS) at their schools respondents had different views. Out of 40 respondents, who were all serving teachers, 27(67.5%) responded that they offered some

practical subjects at their schools while 11(27.5%) responded in the negative, and 2(5%) were not certain.

Table 4.5. Teachers that Taught vocational skills

Status	**Responses**	**Percentage**
Some Practical skills taught	27	67.5%
No practical skills taught	11	27.5%
Not sure	2	5%
Totals	**40**	**100**

From the data observed in the Head teachers' offices, it was evident that all the primary schools targeted offered Creative and Technology Studies (CTS) and had the subject slotted on their timetables. However the major differences were on the number of periods allotted for the subject at the various schools. On the Schools' Time Tables the number of periods given to the subject ranged from as little as 2 periods per week to as much as 6 periods per week.

4.3 The nature of vocational skills education offered at primary schools.

4.3.1 Data from serving teachers

According to the Zambia Basic Education Syllabi Grades 1-7, all primary school children were supposed to learn vocational skills through Creative Technology Studies(CTS). The subjects that were supposed to be learnt were Art and Design, Home Economics, Music, Industrial Arts and Physical Education. All these components were aimed at equipping learners with entrepreneurship skills. This situation also meant that all primary school teachers were supposed to train learners in practical skills or vocational skills. In this regard the respondents who were all serving teachers were asked to indicate components of Creative and Technology Studies (CTS)that were most offered at their schools and the following were their responses.

Asked if they taught all components of Creative and Technology Studies(CTS), 1(2.5%) respondent said that they taught all components of CTS and the rest gave varying answers as

follows, 3(7.5%) respondents said Physical education and Art and Design were popular at their schools, while 4(10%) said Home Economics and Art and Design were the most taught at their schools. 2(5%) answered that Physical education and Home Economics were more favoured it their schools, 1(2.5%) responded that the most popular components at their school were Physical Education, Home Economics and Art and Design.

For Home Economics only, 7(17.5%) respondents responded in the positive just as 6(15%) respondents said they mostly taught Art and Design. There was only 1(2.5%) respondent that answered that they mostly taught music at their school, while Physical Education had 5(12.5%) responses. A combination of Industrial Arts and Home Economics had 2(5%) responses while 1(2.5%) respondent said that they preferred to teach Home Economics, Industrial Arts and Physical Education, and for Physical Education and Music there was only 1(2.5%) response. 5(12.5%) respondents said that they were not certain whether they taught CTS or not, while 1(2.5%) said they never taught CTS. The table below illustrates the above findings.

Table 4.6. Components of CTS most taught in schools

Component	**Responses**	**Percentage**
All components of CTS taught	1	2.5%
Home Economics	7	17.5%
Art and Design	6	15%
Music	1	2.5%
Physical Education	5	12.5%
Physical education/ Art and Design	3	7.5%
Home Economics / Art and Design	4	10%
Physical education/ Home Economics	2	5%
Physical Education/Home Economics /Art and Design.	1	2.5%
Industrial Arts / Home Economics	2	5%
Home Economics/Industrial Arts/ Physical Education	1	2.5%
Physical Education/ Music	1	2.5%
Not certain	5	12.5%
Never taught CTS	1	2.5%
Totals	**40**	**100%**

The above findings show that there was no consistency in the manner schools or rather teachers taught vocational and occupational skills. Moreover, the subject Integration in Creative and Technology Studies (CTS) was not fully implemented in all primary schools sampled. Teachers preferred to teach subject components that they were more comfortable with.

For instance further analysis of the above data indicate that Home Economics was the most taught component of Creative and Technology Studies (17=42.5%) followed by Art and Design (14=35%). Physical Education was also favoured (13=32.5%), Chart 4.1. This clearly showed that vocational skills were not being taught in total but rather selectively.

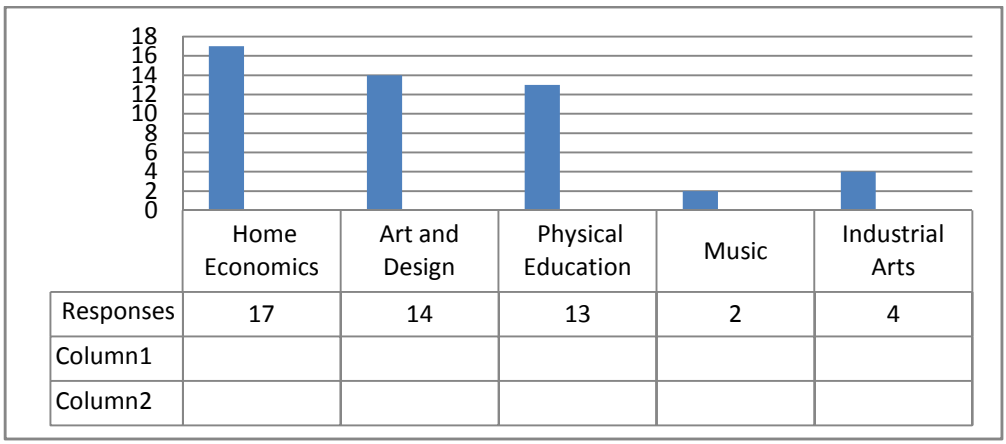


Figure 4.1. Most taught specific components/learning areas

Asked which gender learnt Creative and Technology Studies (CTS), all the 40(100%) respondents responded that in all the schools both boys and girls took the learning area and that there was no segregation in the way they taught.

In the same line of thought, teachers were asked if they enjoyed teaching Creative and Technology Studies (CTS). Below, were the results:

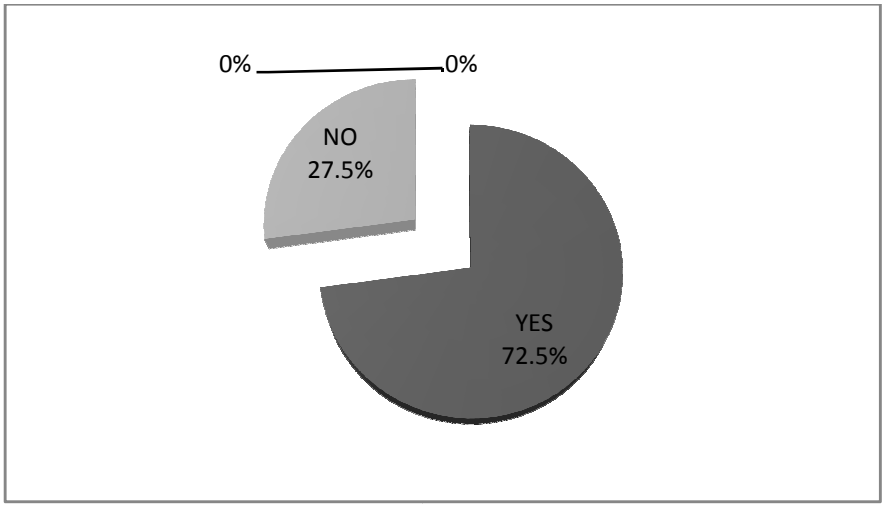


Figure 4.2. Those who enjoyed teaching CTS

As can be seen from the chart above, the majority of the respondents, 29 (72.5%) said "Yes", while 11(27.5%) respondents said "No".

A further question was asked to respondents for them to give reasons for their answers. Respondents who indicated "Yes" (29=72.5%) advanced the following reasons:

- Creative and technology Studies (CTS) was practical oriented and they were comfortable teaching practical subjects. These were 13 responses out of the 29 respondents that said "Yes".

- Creative Technology Studies helped learners to develop survival skills, and the respondents felt it was their obligation to help their learners in the acquisition of those skills that would be beneficial to them in their future life.

- Yet others responded that they enjoyed looking at children as they created objects from their input, and it gave them job satisfaction.

Respondents who indicated "No" (11 = 27.5%) explained that since the subject was practical oriented theydid not enjoy teaching it as there were no equipment and materials to use in their teaching. Others said that their school administrations were not supportive to the subject and that teaching of the skills was too involving as their classes were too overcrowded. In addition some

respondents said that they had no skills in teaching vocational education. They were therefore, not happy and were also notsatisfied.

Figure 4.1. An overcrowded class having a theory lesson in CTS

In addition, teachers were asked to state the sources of the teaching and Learning materials for the teaching of Creative and Technology Studies in their schools. Of the 40 respondents 19(47.5%) said they got their teaching materials from within the local community. 7(17.5%) responded that they used improvisation in the acquisition of materials, while 3(7.5%) indicated that their schools bought the teaching and learning materials. A further 4(10%) respondents indicated that government provided the teaching and learning materials and 3(7.5%) said they got from both Government and the community. 4(10%) were not sure of the source of the materials.

Table 4.7. Source of teaching materials

Source	**Responses**	**Percentage**
Government	4	10%
Local Community	19	47.5%
Improvisation	7	17.5%
Government/Community	3	7.5%
School buys	3	7.5%
Uncertain	4	10%
Totals	**40**	**100%**

The implication of this result is that the schools were not adequately supported in the field of vocational education with the provision of equipment and materials. This in turn made teachers feel uncomfortable with the subject, as they felt inadequate.

Asked further, to state if they thought it was necessary to have Creative and Technology studies at primary school level, 39(97.5%) respondents out of the sample interviewed, overwhelmingly responded in the affirmative with only 1(2.5%) respondent answering that they did think it was necessary to teach Creative Technology Studies at primary school level.

Those that said "Yes" (39=97.5%) gave the following reasons for their answers. Creative and Technology Studies was a vehicle that would help the identification and developing of pupils that had talent in practical skills and indeed any vocational skill. Others said that vocational skills education equipped learners with survival skills that were necessary in their adult life. This would in turn make them independent as they would be self-reliant. In addition some respondents felt that since primary education was an essential foundation for any productive person Creative and Technology Studies (CTS) helped in the development of imagination in the learners. This imagination would in turn enable them be creative adults.

On the other hand the only(1=2.5%) respondent that said that it was not necessary to teach Creative and Technology Studies gave the lack of equipment and teaching and learning materials as the reason why the learning area ought not to be taught.

Finally, the 40 serving teachers were asked what they thought was the best way of encouraging the teaching of vocational education at primary school level and these were their response or suggestions.

13(32.5%) respondents said that the best way of encouraging teaching of the skills was for the government to provide equipment, materials and other necessary resources for use during practical training. This response was followed by 7 (17.5%) respondents that said it was very necessary for government to provide in-service training to primary school teachers in vocational education. This would help in preparing them for the challenge of offering skills training to their learners. 6(15%) respondents said that it was going to be much better if primary schools had specialised teachers in vocational skills only. Yet another 5(12.5%) suggested that it was necessary that government step up training of primary school teachers in vocational skills education.

A further 3(7.5%) respondents suggested that schools would be encouraged if infrastructure for skills training in schools were provided and improved where they were run down. 2(5%) respondents also suggested that the number of subjects at primary school be reduced so as to give learners more time for practice. This answer was further supported by another 2(5%) who suggested that learners be allowed to pursue their various interests so as to help in the development and consolidation of talent. 1(2.5%) respondent went further to suggest that vocational education be allocated more periods on the school time-table so that there would be more time for all learners to have more training in vocational skills.

Additionally another 1(2.5%) respondent even suggested that the Ministry of Education should have personnel who were passionate about vocational skills education at all levels of the education system, from school administration, district administration, provincial administration and even at the Ministry of Education Headquarters.

Figure 4.2. CTS workshop turned into a teacher's house

The implication of this data is that teachers knew quite well and appreciated the value of vocational skills training for their learners. However they were not adequately supported by the education system itself, as their training background was poor, and made worse by the non-availability of materials and equipment to use in their teaching of vocational skills, coupled with poor or a total lack of infrastructure in primary schools, including very limited time allocation for skills training.

Figure 4.3.CTS Workshop turned into a Storeroom

4.3.2 Data from student teachers

Student teachers at theCollege of Education were also asked whether it was necessary to have Creative and Technology Studies at primary school level. Out of the 60 respondents 59(98.3%) said “Yes” and no one answered “No” but, 1(1.7%) was uncertain.

Those that answered “Yes” (59=98.3%) gave the following reasons for their answer:

- Creative and Technology studies was the subject that equipped learners with survival skills which were necessary for their adult life and when out of school.
- The subject had great potential for talent identification in learners.
- Creativity was greatly enhanced by Creative and Technology Studies.
- Others said that the subject promoted logical thinking in learners.
- Learning Creative and Technology Studies built a basis for understanding complex concepts in learners that they were likely to come across in their further education.
- It also helped learners develop a critical mind, and
- Learners were helped to keep fit.

Asked about what they thought was the best way of encouraging vocational skills education at primary school level, the following were the responses.

To this question, 10(16.7%) out of the 60 student teachers indicated that the government would do much better if it provided the necessary materials in schools while another 17(28.3%) suggested that practical training should be given more time so as to provide more practice to the learners, and that this could be done by increasing periods for Creative and Technology Studies on the time-table. 8(13.3%) respondents said that there was need for government to train teachers who could specialise in vocational skills education. A further 8(13.3%) also suggested that government provide adequate equipment to all primary schools so as to facilitate the teaching of vocational skills to learners.

In addition 5(8.3%) suggested that schools be provided with adequate and appropriate infrastructure that would be ideal for the teaching and learning of vocational skills. Another 4(6.7%) added that the supervision of teachers be enhanced so as to make sure that all teachers at primary school taught vocational and occupational skills to their pupils. 2(3.3%) suggested that the teachers should be encouraged to use locally available materials in their communities.

Coming to issues of curriculum 2(3.3%) respondents suggested that Creative and Technology Studies or vocational education be considered as being as important as Mathematics and Science, and the practical component should be examinable. Lastly, 1respondent suggested that there was need for in-service training in vocational education for all serving teachers.

The implication here was also that student teachers appreciated the value of vocational skills education, too. However, they also noticed that the teacher in the classroom was not adequately supported by the education system with a good training and supervision of his/her work in the teaching of vocational skills at primary school level.

4.3.3 Data from Senior Lecturers from the College of Education

Senior Lecturers involved in the training of student teachers in the various components of Vocational skills education were also asked whether they found it necessary to have vocational skills education at primary school level. All the five said “Yes”.

The five respondentscited the following reasons as the basis for their answers. It was felt that primary school was the foundation for any country’s industry and Creative and Technology Studies, therefore, played a vital role in that foundation. They also indicated that not all pupils proceeded to high school and further education, and it was only skills education that would help them survive in this competitive world. This view also took into consideration the need for those

learners that did not enjoy purely academic work. Skills education, therefore, helped to transform learners into productive individuals.

However, when asked if they thought teachers in primary schools were keen to teach Creative and Technology Studies, all five respondents answered "No".

They (five) gave the following as their reasons: Schools had no tools, equipment and materials for the teaching of practical skills. This in turn demotivated teachers who had interest in the subject; many teachers lacked the interest and skills to demonstrate concepts key to skills training. They also acknowledged the fact that indeed the majority of primary school teachers had inadequate background knowledge and skills for teaching Creative and Technology Studies; and also that many teachers saw practical subjects as being too involving and were low class subjects.

When asked about what they thought was the best way of encouraging Vocational education at primary school level, the fiverespondents gave suggestions as follows:

- There was need to adequately equip teachers with teaching skills, teaching and learning resources and increase the time allocated to skills education.
- Let every component of Creative and Technology Studies be taught and examined independently so as to give more room for detailed coverage of both theory and practical work.
- Training of primary school teachers in colleges of education be holistic and extensive so that student teachers would be able to acquire adequate knowledge, skills, values and develop the right attitude so that they would be able to appreciate CTS and confidently teach vocational skills competently.
- Provide incentives and promotional strategies for the teachers of vocational skills.

The above data implies that Creative and Technology Studies (CTS) as a vehicle for vocational skills education was appreciated by teachers at primary school level. However, teachers were not fully competent in all the components of the subjects and this made them not to train learners fully in vocational skills. Lack of system support and non-availability of materials and equipment also worsened the situation.

4.4 Availability of vocational skills educationequipment in primary schools.

The researcher tried to establish how equipped the institutions that gave primary education were for vocational skills education. Asked if their institutions had equipment for the teaching of vocational skills, respondents gave varying responses.

4.4.1 Data from serving teachers from the primary schools

Concerning how well equipped their schools were for the teaching of vocational and occupational skills respondents gave varying answers. The majority of the teachers indicated that schools did not have equipment for the teaching of all the vocational skills. Some respondents responded that where some equipment was available it was more inclined to Home economics, or it was just inadequate, while others said they had only balls at their disposal. A small number of teachers however indicated that they had equipment for the teaching of vocational skills.

Table 4.8. Level of equipment in schools

Status	**Responses**	**Percentage**
Have equipment	8	20%
No equipment	23	57.5%
Inadequate equipment	3	7.5%
Equipment in Home Economics only	4	10%
In Physical Education only(balls)	2	5%
Totals	**40**	**100%**

As can be seen from the above table out of 40 teachers 22(55%) responded that they had no equipment for teaching vocational skills while 8(20%) indicated that they had equipment. 3 (7.5%) responded that they had some equipment but it was not adequate. Furthermore 4 (10%) answered that they had equipment in Home Economics only while 2(5%) said they only had balls as the only equipment.

Figure 4.4. A CTS room turned into a Staffroom at a primary school

Figure 4.5.CTS workshop at a primary school

Figure 4.6. A tools' cabinet

The implication of these responses is therefore that vocational and occupational skills were not being taught in the primary schools because teachers felt they had no equipment to use for teaching. Where they were taught, only skills inclined to Home Economics and some ball games were being emphasised at the expense of the rest.

4.4.2 Data from Senior Lecturers at the College of Education

The above pattern for answers was reflected at the College of Education level where the majority of Senior Lecturers indicated that the equipment was not adequate. Yet, others felt that the equipment was more inclined to Home Economics and sports.

At the College of Education of five Senior Lecturers three said that the equipment was not adequate, while one responded that they only had equipment in Home Economics as one responded that they had enough in Sports.

Figure4.7. A Technology Studies class in session at a College of Education

At college level Senior Lecturers were also straining in preparing the future primary school teachers in vocational skills teaching due to not having adequate equipment and necessary materials.

4.4.3Data from student teachers attheCollege of Education on how equipped the college was for training in vocational skills

Student at the primary college of Education were also asked about the view on the level of equipment at the college in their preparation as teachers at primary school level. Of the 60 respondents 29(48.33%) responded that the college was not well equipped while 22(36.67%) answered that the college was well equipped. Only one (1.67%) responded that the college had no equipment for teaching vocational and occupational skills, and eight (13.33%) did not respond.

Figure 4.8.Technology Studies Workshop at a College of Education

In addition student teachers were asked if they were availed equipment to use during their training and spare times. To this 43(71.67%) overwhelmingly responded that the equipment were availed to them. 7(11.67%) answered that they were availed only at times and 10(16.67%), said they were not availed at all.

The implication of the above responses is that while the College of Education was giving students some basic knowledge in skills education, the training was not very adequate as there was no adequate equipment to efficiently cater for all students in the vocational skills training.

4.5 Effectiveness of teacher preparation for teaching vocational and occupational skills.

Training was one factor that easily predetermined the attitude of someone towards his or her future job. It was, therefore, cardinal that the situation under which primary school teachers trained in preparation for teaching vocational skills be investigated. In the study all categories of respondents (serving teachers, student teachers and Senior Lecturers) were asked to say something about the training of primary school teachers in vocational and occupational skills

4.5.1 Data from Serving Teachers

Serving teachers in the sampled schools were asked if they had training in the teaching of vocational and occupational skills. Of the 40 respondents 25(62.5%) responded with a “Yes”.

nine said “No”, and four said they had partial training while two were not certain whether they were trained in any vocational skills education or not.

Table 4.9. Teachers trained in Skills education

Training	**Responses**	**Percentage**
Yes	25	62.5%
No	9	22.5%
Partly trained	4	10%
Not certain	2	5%
Totals	**40**	**100%**

Further asked if the training that they got was adequate, serving teachers gave the following responses. For “Adequate” there were eleven (27.5%) respondents. These said they were adequately trained. However 25(62.5%) said the training they had had did not adequately equip them as it was “Inadequate”. Four (10%), were “Uncertain”.

Respondents who said the training was “Adequate”(11=27.5%) said that the colleges they were trained at had enough tools and equipment and this helped them get adequate training. Yet others said that they got their vocational skills training through in-service training.

Those that said their training in vocational skills education was “Inadequate” (25=62.5%)gave the following reasons: the colleges where they had trained from did not have adequate equipment and no materials for training purposes; the training teachers underwent was too general and was not enough for someone to acquire teaching skills in vocational skills education. In addition, the concentration on theory rather than practical training and inadequate learning time were also cited as some of the reasons why training was not adequate. Still the lack of examinations in the practical components of the study areas that taught vocational education, during their training made them not concentrate much in learning the vocational skills.

The implication of the above data was that there was great need for regular in-service training for serving teachers in vocational skills education. Skills not practiced were easily forgotten or lost therefore teachers in service needed support.

4.5.2 Data from students that were training to be teachers

Students that were undergoing training as primary school teachers were also asked to say something about the vocational training they were undertaking at the college. Out of 60 students 40(66.7%) of them overwhelmingly responded that their training was "Adequate". The remaining 20(33.3%) stated that their training in vocational education was "Inadequate".

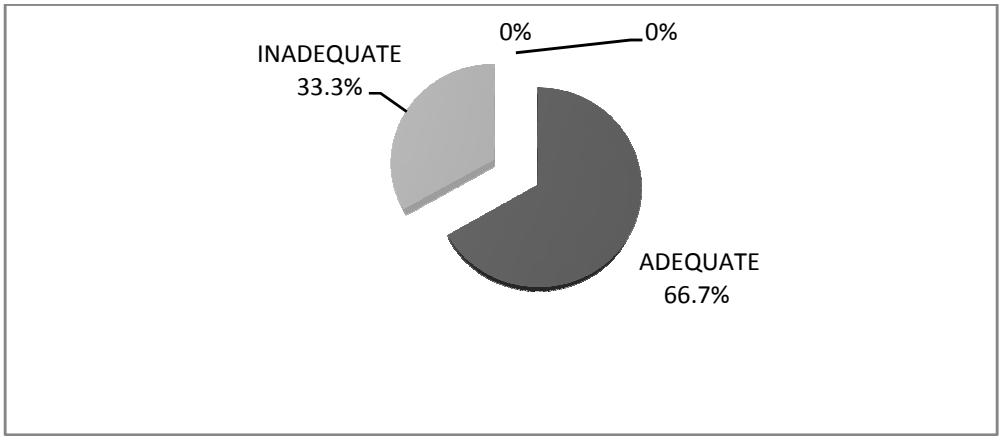


Figure 4.3. Students' rating of their vocational skills training

Asked to state the reasons for their answers those that said the training was "Adequate" (40=66.7%), said the training given to them was enough to teach learners at primary school level and that it was quite interesting. They also stated that their Lecturers were highly trained and committed personnel who knew how to handle the training in vocational skills education.

On the other hand those that said their training was "Inadequate"(20=33.3%), cited the following reasons. There was not enough time for practical training and as a result the training was more theoretical than practical. There were also not enough learning materials, coupled with limited infrastructure and equipment. Furthermore, they said that Lecturers were few and most of them gave inadequate explanations in their lessons.

Students were further asked if they were being given enough time to practice the learnt skills. 30(50%) responded with a "Yes", while 26(43.3%) said "No" with 4(6.7%) being "Uncertain".

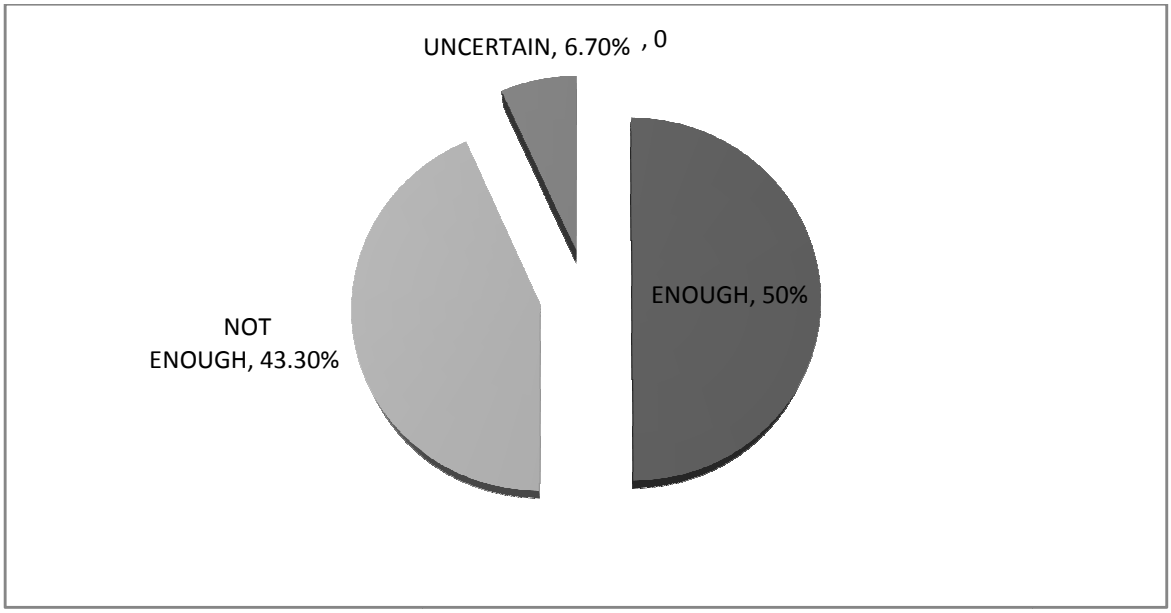


Figure 4.4. Students' skills practice time

To consolidate the above question, student teachers were asked if they were confident that they would be able to competently teach vocational skills after their graduation from college. 53(88.3%) respondents said "Yes" they were confident that they were going to teach the skills adequately. On the other hand only seven (11.7%) said they were "Not" confident that they would be able to teach vocational skills to their learners.

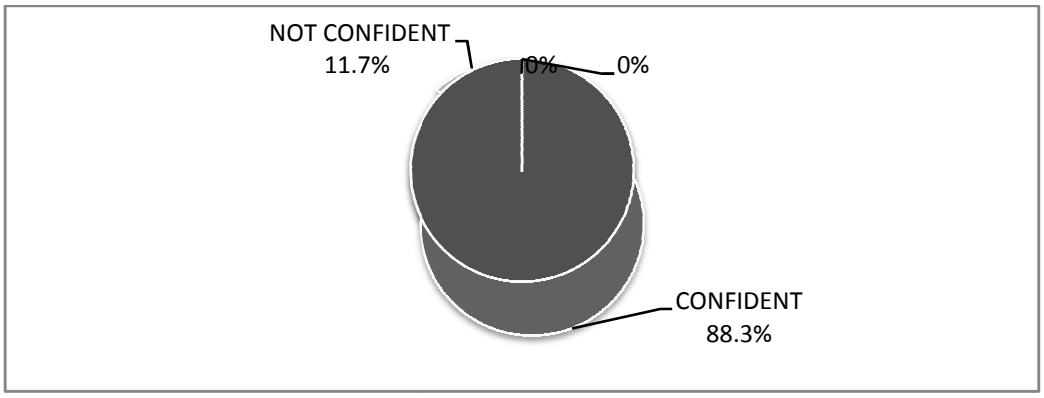


Figure 4.5. Students' levels of confidence

Lastly, student teachers were asked to state the components of Creative and Technology Studies that they enjoyed learning. The following were their responses:

Table 4.10.components students enjoyed learning

CTS component	No. of responses	Percentage
Art and Design	14	23.3%
Home Economics	12	20%
Physical Education	12	20%
Industrial Arts	9	15%
Music	5	8.2%
Home Economics/Art and Design	1	1.7%
Music/Art and Design	1	1.7%
Art and Design/Physical Education	1	1.7%
Industrial Art/Physical Education	1	1.7%
Industrial Art/ Music	1	1.7%
Uncertain	3	5%
Totals	**60**	**100%**

As can be seen from the table above many respondents, 14 said they enjoyed learning Art and Design followed by Home Economics 12 and Physical Education 12. 9 said they enjoyed learning Industrial Arts, while those that enjoyed learning Music were 5. For both Home economics and Art and Design there was 1, Music and Art and Design there was 1. The same went for Art and Design and Physical Education 1, Industrial Art and Physical Education 1, and Industrial Arts and Music also 1. Lastly, 3 were not certain of the components of Creative and Technology Studies.

As can be seen from the responses, the most enjoyed components of vocational skills education were Art and Design (17=28.3%), Home Economics (13=21.7%), Physical Education (13=21.7%), Industrial Arts(11=18.3%) and Music(7=11.7%).

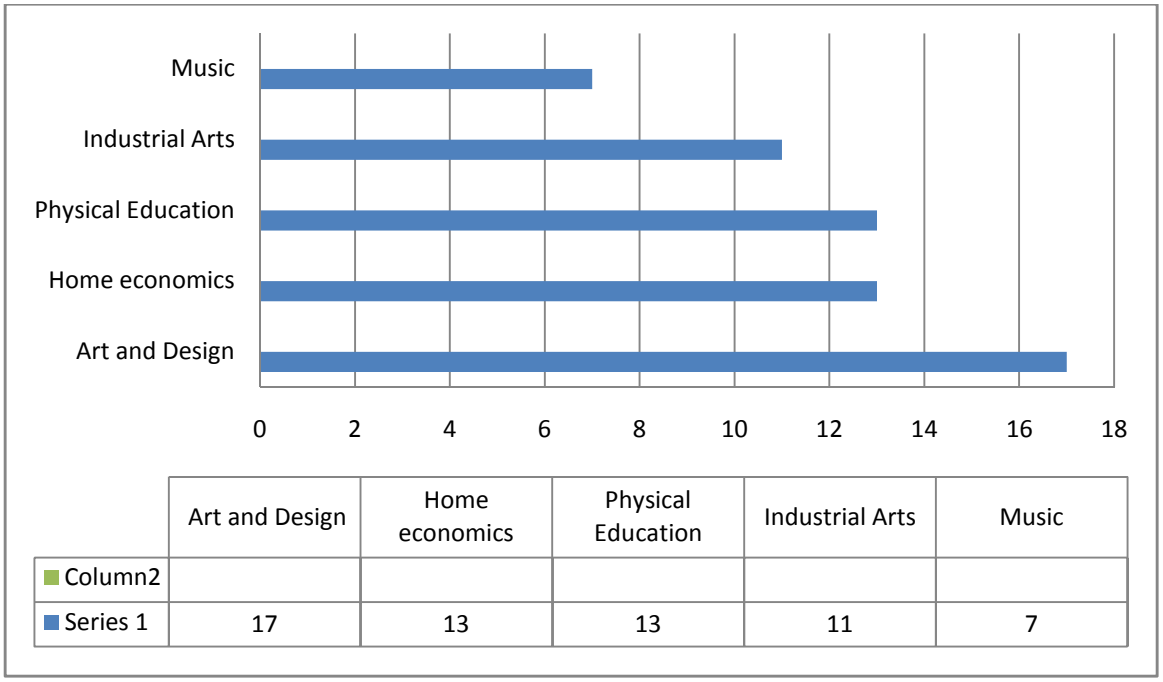


Figure 4.6. Specific component most enjoyed by student teachers

It is evident that many students could be enjoying learning components in which they had some background knowledge. The implication here being that students, while having the zeal to teach vocational skills, would end up beingbiased in their choice of skills on which to concentrate in their future teaching. There is need therefore, for a holistic kind of vocational skills education during teacher training.

4.5.3 Data from Lecturers from the College of Education

Under the same theme Lecturers at Solwezi College of Education were asked if they enjoyed training student teachers in vocational skills. All five responded that they enjoyed their job. Asked for the reasons for their enjoyment they said that they were happy to help in the empowerment of their learners by imparting survival skills into them. This eventually gave them a feeling of self-fulfilment.

Furthermore, the Lecturers were asked if the training given to their students was adequate. Three answered that they felt that the training was “Adequate”, while two said the training given to the student teachers was “Inadequate”.

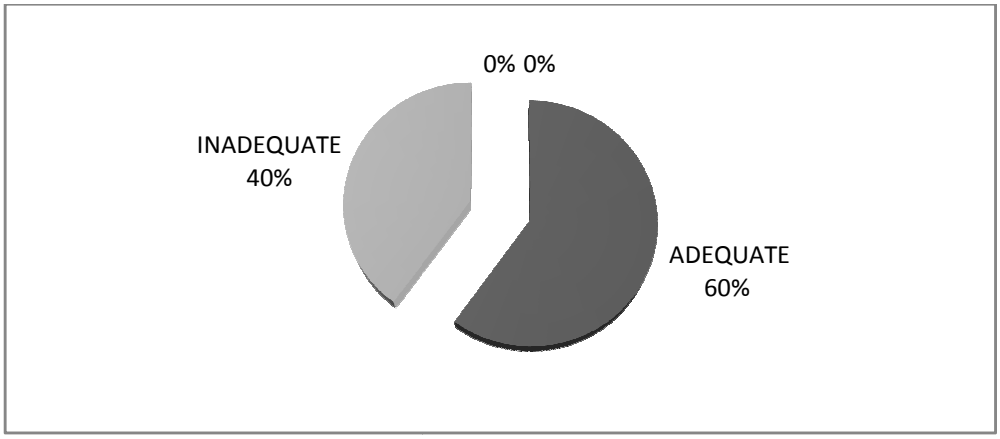


Figure 4.7. Levels of Vocational skills education given to student teachers

Those that said the training given to students was "Adequate" (3=60%) cited the fact that in spite of having inadequate equipment and materials to use in training, Lecturers put in their best effort. They also said that the training was adequate because the students were taught both theory and practical work.

On the other hand, those Lecturers that said the training was "Inadequate" (two) said that the vocational skills training syllabus was not detailed enough and that time allocated for practical training was inadequate. Furthermore, they said, the subject integrated curriculum that was offered under Zambia Teacher Education Course(ZATEC) advocated for teaching of basics only which were not enough for a teacher because for a teacher to be effective, they needed to have more information and skills than the learners they would teach.

The general implication here is that the current approach to vocational skills education was rather shallow and theoretical, with less emphasis on the practical aspect.

4.6Data from Lesson observations of serving Teachers within Solwezi district.

It is worth to mention that this mode of data collection strategy was employed in order to establish the performance of trained teachers in the actual classroom, in order to help the researcher ascertain whether vocational skills education was being taught effectively or not.

However, upon going through the classes randomly, the researcher discovered that there was no teacher at any of the visited schools that was teaching Creative and Technology Studies (CTS),

during these unplanned visits. Most of them preferred to teach learning areas such as Literacy and Numeracy.

The researcher learnt that some primary schools had even reduced the number of periods for Creative Technology Studies(CTS) in order to make room for subjects that they deemed were more important. According to one school administrator,

> "*it was more important to concentrate on teaching subjects that could quickly make an impact on the children and their parents. For instance, our children cannot speak English even at Grade 7, so there is need to have more periods for language than some of these subjects that are time wasting."*

Summary

This Chapter presented the data as they were got from the respondents. The data were categorised according to the four specific objectives that formed themes of the study. The themes made it easier for the researcher to identify the factors that affected the teaching of vocational and occupational skills at the primary school level.Factors relating to the compatibility of the curriculum, the competence of the primary school teachers to teach vocational skills education, the preparedness of the primary schools to provide vocational skills education to the learners and the nature of the training primary school teachers underwent were looked at.

The next Chapter discusses the findings of the study on the factors which affected the teaching of vocational and occupational skills at the primary school level in Solwezi district.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1. Introduction

In Chapter Four the study presented the data as it was got from the various respondents and through observations. This Chapter, however, discusses the findings on the factors which affected the teaching of vocational and occupational skills at the primary school level in Solwezi district. Discussions of the findings are presented with reference to the specific objectives of the study in the following order: To investigate the extent to which the current primary school curriculum was addressing vocational and occupational skills education, to determine the nature of vocational skills education offered in primary schools, to assess how well equipped primary schools were for the teaching of vocational and occupational skills, to find out how effective the training of primary school teachers was, in preparation for teaching vocational and occupational skills. And to finally establish the factors which affected the teaching and learning of vocational and occupational skills at the primary school level in Solwezi district.

5.2 Extent to which the current primary school curriculum addressed vocational and occupational skills education.

In order to establish the factors that affected the teaching of vocational skills in the primary schools it was cardinal that the curriculum for primary schools be looked at. According to the Ministry of Education (1996), practical and technical subjects had four claims to justify their inclusion in the school curriculum. They provided some compensation for the traditional knowledge and practical skills that pupils would have acquired in their home environment if they had not been attending school. They also constituted a form of knowing, experiencing and dealing with the physical world that every educated person needed to possess, and hence had intrinsic educational value. In addition they possessed a potential relationship to the world of work, and this helped to prepare pupils for post-school employmentor vocational training. Finally they also equipped pupils with skills conducive to the constructive use of leisure.

In line with the above claims, the curriculum for Grades 1-7 included the provision for practical subjects. In Grades 1-4, these consisted of simple crafts, which were extended in Grades 5-7 to include more explicit practical subjects (MOE,1996).

Creative Technology Studies (CTS) was the Learning Area at primary school, where the following subjects were integrated: Industrial Arts, Art and Design, Home Economics, Physical Education and Music. This learning area emphasized developing creative, analysis, problem solving and investigation skills in learners. It was in this learning area where learners were expected to acquire practical skills which were useful to their future lives (MOE, 2003).

The results got from the respondents who were all serving teachers clearly indicated that teachers knew and understood the importance of teaching skills education to their learners. This was evident by the number of respondents that agreed that they taught some vocational skills to their learners. They taught these skills through Creative and Technology Studies (CTS). This was in conformity with what was stated in the primary school syllabus (MOE, 2003). This was further confirmed by the fact that all the schools had allocated some periods for the subject on their time tables. This, therefore, implied that all teachers considered Creative and Technology Studies an important subject.

However, the variations in the number of periods given to CTS in the various schools clearly illustrated the value that the different schools attached to the subject. This variation in period allocation was not a healthy feature for vocational skills education as it deprived learners the opportunity to learn. Boateng (2012) realised this when she acknowledged that vocational subjects required more instruction and practical time than other subjects, and as such they needed to be allotted sufficient time to satisfy their goals. When one looked at such challenges at curriculum implementation itbecame quite clear that at the primary school level the curriculum, in relation to vocational skills education was not followed in totality.Where vocational skills were being taught it was only some that the teachers preferred.

When one critically looked at the pronouncements of successive Zambian Governments it became clear that the policy makers knew the problems in the country's overall vocational skills education. The sad part was that governments were not willing to pump in the required support for comprehensive curriculum implementation, more so at the primary school level. In short, there was no political will for the provision of vocational skills education at the primary school

level. The teachers, as the final implementers of the curriculum, were not being fully supported, and as a result they felt inadequate.

The implication of the above data, therefore, was that while the primary school curriculum had addressed various vocational skills through Creative and Technology Studies, not all vocational skills were being taught to the learners at the primary schools in Solwezi district, as required by the primary school curriculum. Time as well was not sufficient. This was even confirmed as being the same, even, at the national level by the Minister of Education, Science, Vocational Training and Early Education,DrPhiri, when he stated that *"currently the curriculum is overloaded, theoretical with less emphasis on practical subjects, less contact time for learning and did not equip learners with entrepreneurship skills."* Thereby *"producing graduates for white collar job market."* (Times of Zambia, February 14, 2013).

5.3 Nature of vocational skills education offered at primary schools.

According to the Zambia Basic Education Syllabi Grades 1-7, all primary school children were supposed to learn vocational skills through Creative Technology Studies(CTS). The subjects that were supposed to be learnt were Art and Design, Home Economics, Music, Industrial Arts and Physical Education. All these components were aimed at equipping learners with entrepreneurship skills(MOE, 2003).

After analysing the data got in response to the question regarding components of CTS most taught in schools it came out clearly that there was no uniformity in the way teachers taught skills education. Of the 40 teachers interviewed only one responded that they taught all components of CTS while the rest gave varying answers. Teachers tended to only teach subject components that they were comfortable with at the expense of subject integration. For instance the above data as illustrated in Chart 4.1, in Chapter Four,indicated that Home economics was the most taught component of Creative and Technology Studies (CTS) at (17=42.5%) followed by Art and Design (14=35%). Physical Education was also favoured (13=32.5%). Industrial Arts and Music received the least attention despite being the components that helped to develop most economically inclined skills. This clearly showed that vocational skills were not being taught in total but rather selectively.This indeed had a bearing on the nature of the graduates that came out from the primary school.

The preferences of the majority of the teachers in terms of components of the subject to teach brought about a sad realisation. The fact thatIndustrial Arts, Crafts and Music were not highly rated by teachers confirms the fact that the most essential survival skills were not being taught to the learners. This result, therefore, raises other questions in relation to lack of effectiveness in the teaching of Creative Technology Studies.

The question that come up here concern the integration of the current components of Industrial Arts, Home Economics, Physical Education, Art and Design and Music, to form one Learning area called Creative and Technology Studies (CTS). Are all these components compatible? Is the integration viable? Are the different components related? How easy is it to blend the various disciplines that these components consist of into an individual teacher that can competently teach learners that had a very limited background?

The majority of the teachers also responded that theyenjoyed teaching CTS, 29 as opposed to eleven who said that they did not enjoy teaching the Area. However when one looked at the reasons given by those who were not enjoying teaching CTS it was evident that the reasons given applied to all. This was so because they tried to explain why not all components of CTS were taught.

This group of respondents stated that they never enjoyed teaching CTS because there were no materials and necessary equipment to use in the teaching. Others blatantly said that teaching of skills was too involving and that the schools were not supportive.Webbo, (1990), also observed the same as being problems facing the teaching of vocational skills. He cited the lack of appropriate workshops where the subject could be appropriately taught as being a major problem in most developing countries, and also lack of basic materials, tools and equipment including lack of support books. Yet others came out sincerely and stated that they had no skills themselves. The above reasons could be quite genuine, otherwise how does one explain the lack of subject integration in the teaching of Creative and Technology Studies?

The above responses were further reinforced by the responses that were given by the respondents as to their source of teaching and learning materials. When asked to state their source of materials the majority of teachers said that they got the materials from within their local communities through improvisation. The government and the schools were not quite helpful in that regarddespite government's acknowledgement that for science, technology and practical subjects to be properly taught and meaningfully learned in primary schools, it required schools

that were adequately supplied with equipment, apparatus, materials and relevant books(MOE,1996). This indeed was too involving for the teachers who were supposed to prepare and teach five other integrated Learning Areas.

This finding, therefore, implied that the teaching and learning of CTS in many of the schools greatly depended on the initiative of the teachers and the good will of parents.However, failure by the teacher to explore the environment to discover possible materials to use in the workshop or for any vocational skill teaching and failure to develop personal knowledge and to experiment with various skills in the subject to enrich his teaching (Webbo, 1990), meant no learning for the pupils. If the local environment was not in a position to provide what was needed for the teaching and learning of a certain skill then that kind of content was ignored. This, therefore, could be the major reason why a component such as Industrial Arts was not popular with the primary school teachers, when it came to teaching Creative and Technology Studies because of the cost factor attached to the resource requirement for this component.

In spite of the challenges encountered in the teaching of vocational skills at the primary school level all teachers except one felt it was necessary to have Creative and Technology Studies at primary school. All teachers understood the fact that primary education was the foundation for the development for any society and that vocational education helped in equipping pupils with survival skills necessary in their future. They also agreed that CTS helped in talent identification and consolidation. In addition the Learning Area enhanced the power of imagination in the learners.

Even students undergoing teacher training also overwhelmingly agreed that it was very necessary to teach CTS in primary schools. In addition to the reasons given by serving teachers, students said CTS promoted logical and critical thinking in addition to keeping fit.

Senior Lecturers went further to state that not all learners enjoyed purely academic work and that not all learners went beyond primary school, therefore, vocational skills could greatly help them to fit into their communities and thereby survive and contribute favourably. This was so because vocational skills education helped to transform individuals into productive members of society. This point confirmed the theory by Paulo Freire and others who supported the Critical Education Theory which placed emphasis on equal opportunities for all learners as each one had potential to excel at their own pace (Ballantine and Hammack, 2009). Indeed recognition of human

diversity and the variations and ambiguity in the way different people learnt and saw the world was the essence of any good education.

Indications within the Zambian society were that the general Zambian population was ready for vocational and occupational skills. This was very evident by the mushrooming of small workshops producing various articles nearly at every corner of streets in our compounds. Boys and girls of all ages were trying all sorts of skills in order to survive. The skills ranged from carpentry and welding and other industrial skills to trading of various items in the compounds and streets. To crown it more, one finds out that the youths that were producing the "superior" articles that were lining our streets were, actually, primary school drop outs, the very children whom the school system had thrown out onto the streets.Government, therefore, needed to take this indication very seriously that society urgently required vocational skills education to be firmly established in the education system.

This observation was also noted by Banda(1981) that when the effort of primary schools were complemented with small scale community based schemes, primary school leavers benefited by acquiring the necessary skills, which enabled them to play a useful role in the economy.

5.4 Availability in primary schools of equipment for the teaching of vocational and occupational skills.

The study also sought to find out information on how well equipped primary schools in Solwezi district were for the teaching of vocational skills. The results of the research clearly showed that there was a dearth of equipment as well as infrastructure in the schools for the teaching of vocational skills. The majority of the teachers indicated that schools did not have equipment for the teaching of all the vocational skills. The respondents who said their schools had some equipment mostly stated that much of it was more inclined to Home Economics and Physical Education.

The above pattern of answers was reflected at the College of Education level where the majority of the Senior Lecturers indicated that the equipment was not adequate. Yet others felt that the equipment was more inclined to Home Economics and sports. This fact was also alluded to by student teachers who also stated that the equipment was not adequate.A situation further confirmed by Sitali (1985) and Sipalo (2010) in their studies.

The above findings clearly pointed to the shortcomings of the policy on education as espoused in the document *Educating Our Future* in which government committed itself:

> *"henceforth the provision of basic classroom furnishings, equipment, materials, and display areas was going to be integral to all primary school rehabilitation and construction programmes"*(MOE,1996: 47).

This had not been the case in the primary schools of Solwezi District. The government had clearly shown no political will in making the primary school the firm foundation that it was supposed to be.

The issue of infrastructure left a lot to be desired as all the primary schools visited needed necessary infrastructure that could be conducive for teaching all components of Creative and Technology Studies(CTS).The nature of the disciplines that made up CTS was such that much of the teaching and learning required specialised rooms. The most unfortunate thing was that the few schools that had some rooms which were meant for vocational skills education had them turned into either regular classrooms, or staffrooms or even into teachers' houses. Some workshops were even turned into storerooms for broken furniture. Itwas very evident that Vocational skills education was not a priority of the primary schools as many of them had no facilities around. One school that had made some effort had skeleton equipment and facilities which could not even cater effectively for the pupil population of over 3,000.

The implication of these responses was that vocational and occupational skills were not being taught in the primary schools because teachers felt that they had no equipment to use for teaching and the infrastructure was not available. Where some skills were taught, only skills inclined to Home Economics and some ball games were being emphasised at the expense of the rest.This eventually left out those learners that were not inclined to Home Economics, more especially the boys.

The nature and characteristics of vocational skills presented unique challenges to institutions, teachers and administrators in that schools needed workshops, tools, equipment and materials (Boeteng, 2012). All these requirements, in turn, made vocational education more expensive than other types of education. However, as the situation stood in Zambia, there was no other choice but to make the sacrifice now and save the future.

It was important that specialised rooms be provided for both the teachers and their learners to be comfortable and also for easy storage of tools and equipment. Basic equipment could be provided in phases rather than waiting to provide for the whole nation at once. This could be done after a study to identify what skills were essential in a particular community. The key here being that government, through the education system give maximum support to the teacher at the school.As the situation stood, the whole burden of improvisation was heaped on the class teachers, and this made them seek out easier ways of teaching, by avoiding subjects that were too demanding.

When asked to suggest some ways that could encourage the teaching of CTS, teachers suggested that some ways by which they could be encouragedto teach Creative and Technology Studies at the primary school level was for government, through the Ministry of Education, Science, Vocational Training and Early Education(MOESVTEE) to support skills education by building appropriate infrastructure, such as workshops and other specialised rooms for practical experiences. And also provide relevant tools and equipment, including materials that could not be sourced locally.

When one examined the above information, it became evident that the major player in the improvement of the teaching of vocational skills education was government. Teachers were ready to implement the policy on skills education but they lacked support, in terms of tools, equipment, related infrastructure and materials for practical work. This was indeed a daunting task for the government. However if skills education was to become a reality in the education sector then tangible solutions had to be found.

One way could be to make sure that all the infrastructure that were meant for skills education reverted back to their original purpose. There was also need to enhance administrative support through monitoring of teaching of vocational skills education. This, actually, called for inspectors that were more inclined to vocational skills education. As the situation stood, there were very few teachers that taught components of vocational education that got promoted as inspectors or standards' officers. This, indeed, affected the morale of those teachers that were interested in developing the subject as they saw no future in it.

5.5 Effectiveness in preparation for teaching vocational and occupational skills.

In order to come up with tangible factors that affected the effective teaching of vocational and occupational skills at the primary school level, it was imperative that the training that teachers underwent, in readiness to teach at the primary school level be looked at. The study, therefore, asked questions to both serving teachers and student teachers on the nature of their preparation as primary school teachers.

When asked if they had training in the teaching of vocational and occupational skills, a number of serving teachers responded in the positive (25 out of 40), while nine said they had no formal training in vocational skills. Meanwhile, four teachers said they had partial training, and two said they were not certain whether they had any training in any vocational skills or not.Such varying responses just went to show the value that different teachers attached to vocational skills education. The fact that the majority of the teachers answered in the positive was testimony enough to confirm the fact that Colleges of Education were undertaking some vocational skills education of some kind. However, it could be that the training was not comprehensive enough to give confidence to the graduates, hence the doubt by some of the respondents.

This was further confirmed by the response that the teachers gave when asked whether the training was adequate or not. 25 teachersresponded that the teacher training they had had did not adequately equip them to teach vocational skills to their learners. On the other hand, the respondents who said the training was adequate, (eleven), said that the colleges they had been trained at had enough tools and equipment and this helped them get adequate training. Yet others said they got their vocational skills training through in-service training.

Those that said their training in vocational skills education was not adequate gave lack of equipment and materials for practice as some of the reasons for not learning much. They also claimed that the training that they had undertakenwas too general, thereby not enough for someone to acquire teaching skills in vocational skills education. Heavy concentration on theory rather than practical training and inadequate learning time were also cited as some of the reasons why the training was not adequate. Finally lack of examinations in the practical components of the study areas that taught vocational education, during their training made them not concentrate much in learning the vocational skills.

It was clear here that while the teachers acknowledged having had some training in vocational skills while at College, it was not enough. Teachers needed to be backed up with a lot of support while in the field, in form of in-service training which could be in form of both short and long term training. It was indeed true that the primary school teacher lacked the knowledge and skills in vocational skills because the curriculum used in preparing them lacked much of these aspects of education, since their training was too general. Webbo (1990) stated that lack of intensive training in the subject in the training institutions, and lack of intensive and frequent in-service courses for the teachers in the field, were some of the challenges facing teaching of vocational skills.Likewise, a bank cannot give out money which was more than what was available in the strong room, just as the teacher found it difficult to teach what he/she did not learn or cover during the teacher training process. There was need to improve the training of teachers in vocational skills education and improve the primary teacher curriculum so as to equip the teacher adequately and enable him or her face the challenges on the field effectively.

Students that were undergoing training as primary school teachers were also asked to say something about the vocational training they were undertaking at the college. Out of 60 students 40 of them overwhelmingly responded that their training was adequate, while the rest, 20, stated that their training in vocational education was not adequate.

Those that said the training was adequate said the training given to them was enough to teach learners at the primary school level and that it was quite interesting. On the other hand, those that said their training was not adequate cited among other things the fact that they were not given enough time for practical training and as a result training was more theoretical than practical. They also cited lack of learning materials, coupled with limited infrastructure and equipment. Furthermore, they said that Lecturers were few and most of them gave inadequate explanation in their teaching.

When asked if they were confident that they would be able to competently teach vocational skills after their graduation from college, the majority of the students responded that they were confident. Only a few, however, said they were not quite confident that they would be able to teach vocational skills to their learners.

The responses from students were quite interesting. What made them interesting was that students, though many had indicated that they would teach vocational skills confidently, they did not mean all vocational skills. This was quite evident when they were asked to state the

components of Creative and Technology Studies (CTS) they enjoyed learning. None indicated that they enjoyed learning all components. However, the most enjoyed components of vocational skills education were Art and Design at 28.3%, followed by Home Economics at 21.7%. Physical Education had 21.7%, while Industrial Arts had 18.3%, and Music11.7%. These results clearly reflected the picture of what was pertaining in the primary schools in Solwezi district. This indeed becomes worrisome as it does not give hope for improvement.

It was evident that many studentsenjoyed learning components in which they had some background knowledge. This would then mean that new graduates, while having the zeal to teach vocational skills, would end up being biased in their choice of skills on which to concentrate in their teaching. This probability therefore raised another question with regards the training teachers underwent in preparation for vocational skills education. Was the current subject integration of Study Areas at college level compatible? Were subject groupings related to each other?

It was clear that the combining of Industrial Arts and Home economics, both subjects that were heavy in resource demands, under a single Study area had an effect on the vocational skills training that colleges gave to their students. One component was overshadowing the other in as far as resource allocation was concerned. How about giving the two major subjects an element of specialisation, where a student chose to either take Industrial Arts or Home economics separately, while taking the rest? Such a move could definitely solve the challenge of time allocation as students would have enough time for their practical exercises in their area of interest.

The College trained student teachers in vocational skills via Expressive Arts which comprised Art and Design, Music and Physical Education, and also through Technology Studies, which comprised Industrial Arts and Home Economics. All these components were allocated two (2) periods each of 60minutes per week. Both male students and female students took the components.

When asked if they enjoyed training student teachers in vocational skills, all Senior Lecturers said that they did, and most of them felt that the training they were giving to their students was quite adequate. Others, nevertheless, still saw the training to be inadequate. Those that said the training given to students was adequate cited theeffort which Lecturers put in despite inadequate

equipment and materials to use in training, and also the fact that students were, according to them, taught both theory and practical work.

On the other hand, those Lecturers that said the training was not adequate said that the vocational skills training syllabus was not detailed enough and that time allocated for practical training was inadequate. Furthermore, they said, the subject integrated curriculum that was offered under Zambia Teacher Education Course(ZATEC) advocated for teaching of basics only which were not enough because for a teacher to be effective, they needed to have more information and skills than the learners they taught.

This last group felt that the current approach to vocational skills education was rather shallow and theoretical, with less emphasis on the practical aspect. The last point contradicted with what the first group, cited above, said. However on physical visits to the College it was found that students spent more time taking down notes from Lecturers than they practiced the learnt skills. It was quite evident thatat college level Senior Lecturers were also straining in preparing the future primary school teachers in vocational skills teaching due to not having adequate equipment and necessary materials.This finding confirmed the findings by Santambo (2011) who observed that the operations of the subject integrated curriculum made it difficult for the implementation of comprehensive consecutive practical lessons in practical oriented study areas like Technology Studies and Expressive Arts, due to lack of time. This resulted in student teachers graduating with a lot of theoreticalthan practical skills.

Summary

The finding of the study establishes what was discussed in the Literature review that the primary school curriculum in its present form was skewed towards producing citizens who had no vocational and entrepreneurship skills.It was overloaded, theoretical with less emphasis on vocational skills, less contact time for learning and did not equip learners with entrepreneurship skills. It also justifies the stake holders' outcries,in Solwezi district in particular, for a curriculum that would place vocational skills at the center of Zambia's education.

CTS components which were not too demanding seemed to overshadow the other components that demanded expensive materials, equipment and more time. Lack of infrastructure and related equipment in schools was, indeed, a very big challenge, nevertheless, these were the backbone of any vocational skills training.

The next Chapter concludes the dissertation and also makes some recommendations and suggestions for future research.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Summaries

Chapter Five discussed the findings on the factors that affected the teaching of vocational skills at the primary school level in Solwezi District. These were discussed according to the objectives of the Study. Chapter Six, however, makes a conclusion of the dissertation and also makes some recommendations and suggestions for future research.

The focus of the study was to establish the factors that affected the teaching of vocational skills in primary schools in Solwezi district. As indicated in the purpose of the Study, the researcher purposed to do so by finding out why pupils who dropped from school at the primary school level had no vocational or occupational skills. The study looked at the extent to which the primary school curriculum was addressing vocational and occupational skills education, the nature of the vocational skills being offered in the primary schools, how well equipped the primary schools were for the teaching of vocational and occupational skills, and finally, find out how effective the training that primary teachers underwent, in relation to vocational skills education, was.

Consecutive Zambian governments have shown their interest in vocational skills education by stating in the various policy documents on education, including the Basic School Curriculum Framework the need for vocational education for the learners at primary school level(MOE, 1977, 1996, 2000).Further attestation was that the subject, through which vocational skills were supposedly to be delivered, Creative and Technology Studies, was created through integration and allotted space in the primary school curriculum (MOE, 2003).The components that made up CTS were Art and Design, Music, Physical Education, Home economics, and Industrial Arts.The teachers, on their part appreciated the subject, as they understood its importance in the life of a growing child and the nation at large. These indeed were positive indications.

However, the support by government for vocational skills education at the primary school level seems not to be serious. Primary schools were yet to benefit from the government's intentions,

more especially the primary schools in Solwezi district. The government has not shown any political will in making the primary school the firm foundation that it was supposed to be.

Going by the findings of this research it was very evident that vocational skills education was not getting full attention. Such a situation made vocational education continue to suffer setbacks that it had been suffering since the colonial times. This being the case, there was a danger that our education system would continue to produce graduates that were bookish and devoid of any useful skills that would make them self-reliant, just as it was observed thirty nine years earlier byMwanakatwe (1974). With quality education that prepared a child holistically those leaving school would be more self-confident to fend for themselves, as they would be equipped with a good measure of vocational skills in any technical subject, including agriculture. The research findings therefore showed that very little was being done to prepare the primary school children in terms of equipping them with survival skills.

The study also revealed the following negative factors which affected the effective teaching and learning of vocational skills at primary school level: It was not possible for a teacher at the primary school level to teach all the five components of Creative and Technology Studies competently because they lacked adequate skills and knowledge. Teachers tended to teach subjects in which they had ample background; Time allocated to skills training was not adequate; Primary schools were not supported with infrastructure and equipment to use in the teaching of vocational skills; Though the Grade 7 Composite Examinations had included Creative and Technology Studies, the examination did not have a practical component. This made teachers not to take the subject seriously, but just drilled pupils to pass the theory examination.

The study further revealed that Standards Officers concentrated more on monitoring academic subjects than the teaching of vocational skills; Teachers lacked materials to use for teaching because government was not supporting schools with adequate funds. In addition, the teachers' training did not equipthem with skills for material identification within the local environment; the teachers did not have adequate knowledge and skills to teach vocational skills education because their training was more general than specific, and without any specialisation; Most of the primary schools in Solwezi urban were overenrolled. This made it difficult to provide skills training as classes were overcrowded; it was also clear that the subject integration of Home Economics and Industrial Arts as Technology Studies made it practically impossible for colleges to adequately train fully ground teachers in those components because they both possessed huge

bodies of information and required a lot of time for practice. Because of suchintegration there was inadequate coverage of the syllabus as time was very limited.

Basing on the discussion and findings of the study, the researcher concludes that the teaching of vocational skills education to pupils at primary school level as a way of preparing them early in their choice of occupations later in life,was attainable. The general citizenry in the country would appreciate the move as it was evident in the various communities where small scale businesses were flourishing. However, it would greatly require full commitment from the government, as vocational skills education was an expensive undertaking. Findings from the study revealed that government lacked political will to pump in resources in this noble cause. The teacher should be supported with appropriate infrastructure, adequate equipment and teaching materials. The training that was given to the teachers also needed to be revisited because it had shortcomings.

6.1 Recommendations

Arising from the above findings and discussions that addressed all the four objectives, this study made the following recommendations:

- All specialized rooms that have been converted to teachers' houses and other usage be reverted back to their intended purposes.
- Government should support the Ministry of Education, Science, Vocational Training and EarlyEducation(MOESVTEE) by giving it adequate funding to provide the relevant infrastructure, equipment and teaching materials, where these could not be sourced locally, to primary schools. This could be done in phases. This would greatly motivate teachers and pupils.
- Colleges of Education should design intensive, short and long term, in-service courses for teachers in vocational skills education. This should be an on-going exercise so as to continuously sharpen the skills of the teachers. This would help to build up real capacity into the teachers, which would help them to implement the curriculum arrangement competently.
- Curriculum Development Centre (CDC) should re-arrange Technology Studies(TS), at College level and Creative and Technology Studies(CTS),at the Primary school level, by making sure that only contributory subjects with related contents were grouped together. The marrying of Industrial Arts and Home Economics together defeated the essence of effective vocational skills teaching. Practical subjects and any other subjects that were

not related to any other subjects should be left to stand on their own so that they would have ample time for practice.

- Education institutions should allocate more teaching periods to Creative and Technology studies and other practical oriented subjects. This would help in the implementation of comprehensive consecutive practical lessons to enable learnersattain adequate vocational skills and not only theories.
- MOESVTEE should consider semi-specialization at primary school level. For instance student teachers should be given a choice between Home Economics and the other practical subjects or Industrial Arts with the other practical subjects. This would allow the student teachers to be adequately trained in vocational skills education as they will have more time for wider coverage of background information and practical work.
- MOESVTEE should open up its promotion strategy to include teachers who only had a background of vocational skills education. The other way was to work together with Universities in the country that train teachers to consider offeringDegree programmes for vocational skills education. This would provide the motivation that was lacking in teachers that taught components of vocational skills education, in our education system.

Suggestions for Future Research

This study was centered on the factors that affected the teaching of vocational skills at the primary school level. It specifically looked at some selected primary schools in Solwezi district. Whilst revealing the various factors that affected the teaching of vocational skills at the primary school level, the following gaps were noticed and are therefore some of the issues for future research:

- An assessment on the impact of vocational skills education in secondary schools, on the local communities and the economy of the country as a whole.

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APPENDICES

Appendix 1

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SOCIOLOGY AND SPECIAL EDUCATION

QUESTIONNAIRE FOR PRIMARY SCHOOL TEACHERS, SENIOR TEACHERS AND HEADTEACHERS

Study Topic: Factors Affecting Teaching of Vocational Skills in Primary Schools: The Case of Selected Primary Schools in Solwezi District.

Introduction

This questionnaire is designed to collect information from concerned stakeholders, such as teachers, senior teachers and head teachers at primary school level. The major purpose of the study is to find out factors that have affected the teaching of vocational skills at the primary school level. Your responses therefore will help in establishing how best these skills can be imparted in pupils at an early stage in their education. All the information collected will be treated with outermost confidence. Respond by writing your responses in the spaces provided. Thank you.

RESEARCH QUESTIONS

1. Your Sex: .....
2. What is your highest qualification?

   Primary Teachers' Certificate ☐ Teaching Diploma ☐

   Bachelor of Education Degree ☐ Master of Education ☐

   PhD ☐

   Any other (specify).....
3. For how long have you been teaching?

   1 – 5 years ☐ 6 – 10 years ☐ 11 – 15 years ☐

   16 – 20 years ☐ 20 – 25 years ☐

   26 – 31 years ☐ 32 – 36 years ☐

4. Does your school offer any practical subject?

   Yes: ☐ No: ☐ (tick)
5. What are the subject elements for Creative and Technology Studies (CTS)?

   .....

   .....
6. How many periods are allocated for Creative and Technology Studies per week?

   .....
7. Which classes take Creative and Technology Studies?

   .....
8. Which component of Creative and Technology Studies (practical subjects) is most offered at the school?

   .....
9. Do both boys and girls take the same subjects?

   Yes: ☐ No: ☐ (tick)

10. How many teachers teach Creative and Technology Studies at your school? (Indicate answer in terms of gender).

    Males: ..... Female: .....

11. Do you enjoy teaching Creative and Technology Studies?

    Yes: ☐ No: ☐ (tick)

12. If your answer to Question 11 above 'YES' or 'NO' give reasons.

    .....

    .....

13. Are you trained to teach vocational skills/practical subjects?

    .....

14. How was your training in the teaching of vocational skills/practical subjects?

    Adequate: ☐ Inadequate: ☐ (tick)

15. Give reasons for your answer in Question 14, above.

    .....

    .....

16. Where does the school get the materials for use to teach Creative and Technology Studies?

    .....

17. Do you have any equipment for use in teaching practical aspects of the subject?

.....

18. In your opinion, do you think it is necessary to have Creative and Technology Studies (practical subjects) at primary school level?

    Yes: ☐ No: ☐ (tick)

19. If your answer to Question 18 above 'YES' or 'NO' give reasons.

    .....

    .....

20. What do you think could be the best ways of encouraging the teaching of vocational education at primary School level?

    .....

THANK YOU FOR YOUR RESPONSE

Appendix 2

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SOCIOLOGY AND SPECIAL EDUCATION

QUESTIONNAIRE FOR COLLEGE OF EDUCATION LECTURERS

Study Topic: Factors Affecting Teaching of Vocational Skills in Primary Schools: The Case of Selected Primary Schools in Solwezi District.

Introduction

This questionnaire is designed to collect information from concerned stakeholders, such As Senior Lecturers who train teachers for the primary school level. The major purpose Of the study is to find out factors that have affected the teaching of vocational skills at The primary school level. Your responses therefore will help in establishing how best these skills can be imparted in pupils at an early stage in their education. All the information collected will be treated with outermost confidence. Respond by writing your responses in the spaces provided. Thank you.

RESEARCH QUESTIONS

1. Your Sex: ..... Subject Area: .....
2. What is your highest qualification?

   Teaching Diploma ☐ Bachelor of Education Degree ☐

   Master of Education ☐ PhD ☐

   Any other (specify).....
3. Does this College offer any practical subjects? Yes: ☐ ☐ k)
4. What components of Creative and Technology Studies are offered at your College?

   .....
5. How many periods are allocated for your component of Creative and Technology Studies per week?

.....

6. Which component of Creative and Technology Studies (practical subjects) is most offered?

.....

7. Do both males and females take the same subjects?

   Yes: ☐ No: ☐ (tick)
8. How many Lecturers teach Creative and Technology Studies (practical subjects) at your College? (Indicate answer in terms of gender).

   Males: ☐ Female: ☐
9. Do you enjoy training students in vocational skills?

   Yes: ☐ No: ☐ (tick)
10. What is the reason for your answer?

    .....

    .....

11. According to you, are teachers in primary Schools keen to teach Creative and Technology Studies?

Yes: ☐ No: ☐ (tick)

12. Give reasons for your answer in Question 11 above.

.....

.....

13. Do you think the training given to student teachers in Creative and Technology Studies adequate?

Adequate: ☐ Inadequate: ☐ ick)

14. Explain for your answer in question 13 above.

.....

.....

15. Do you have equipment for use in teaching vocational skills?

.....

16. In your opinion, do you think it is necessary to have Creative and Technology Studies (practical subjects) at primary school level?

Yes: ☐ No: ☐ (tick)

17. Give reasons for your answer in Question 16 above.

.....

.....

18. What do you think could be the best ways of encouraging the teaching of vocational skills at primary School level?

.....

.....

THANK YOU FOR YOUR RESPONSE

Appendix 3

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SOCIOLOGY AND SPECIAL EDUCATION

QUESTIONNAIRE FOR STUDENTS UNDERGOING TRAINING AS PRIMARY SCHOOL TEACHERS

Study Topic: Factors Affecting Teaching of Vocational Skills in Primary Schools: The Case of Selected Primary Schools in Solwezi District.

Introduction

This questionnaire is designed to collect information from concerned stakeholders, such as student teachers that are being prepared to teach at primary school level. The major Purpose of the study is to find out factors that have affected the teaching of vocational skills at the primary school level. Your responses, therefore, will help in establishing how best these skills can be imparted in pupils at an early stage in their education. All the information collected will be treated with outermost confidentiality. Respond by writing your responses in the spaces provided. Thank you.

RESEARCH QUESTIONS

1. Your sex: ..... Year of study: .....
2. Does this College offer any practical subjects?

   Yes: ☐ No: ☐ (tick)
3. How many periods are allocated for Creative and Technology Studies per week?

   .....
4. Which component of Creative and Technology Studies do you enjoy learning?

   .....
5. Do both males and females take the same subjects?

   Yes: ☐ No: ☐ (tick)
6. Are you given enough time to master vocational skills that you are taught?

   .....
7. Do you think the training given to you at this college, in Creative and Technology Studies, adequate preparation for teaching all components of Creative and Technology Studies after you graduate?

   Adequate: ☐ Inadequate: ☐ (tick)
8. What is the reason for your answer in 7 above?

   .....

   .....
9. Are you confident that when you graduate you will be able to teach vocational skills with confidence?

   .....
10. Does the college avail to you any equipment for use in learning vocational skills?

    .....
11. How adequate is the training equipment?

    .....

12. In your opinion, do you think it is necessary to have Creative and Technology Studies at primary school level?

Yes: ☐ No: ☐ (tick)

13. Give reasons for your answer in 12 above.

.....

.....

.....

14. What do you think could be the best ways of encouraging the teaching of vocational skills at primary School level?

.....

.....

….....

THANK YOU FOR YOUR RESPONSE

Appendix 4

RESEARCH TIME-LINE

DATE	ACTIVITY	EXPECTED OUTCOME
April – June,2012	- preparation of Research Proposal - Submission of Research Proposal for approval	- Research Proposal
July, 2012	- Development of Research Instruments	- Completed research Instruments
August, 2012	- Pilot Study	- Refinement of Research Instruments
September – October, 2012	- Field work : Data Collection	- Data Collection
November, 2012 – January,2013	- Coding and data analysis	- Preliminary Results - Draft Report
February – April, 2013	- Finalisation of report	- Final Report submission

Appendix 5

RESEARCH BUDGET PROPOSAL

S/N	DESCRIPTION	QUANTITY	UNIT COST	SUB-TOTAL
1	Duplicating paper	3 reams	K 40,000	K120,000
2	Toner	1	K900,000	K900,000
3	Secretarial Services	1Typist	K500,000	K500,000
4	Transport to stations/fuel	80 Litres petrol	K8,155	K652,400
5	Binding	-Temporal Copy x 1 -Loosely bound copies x 4 - unbound manuscript x 1 - Final hard bound copies x 4		K2,000,000
6	Contingencies	-	-	K 417,240
GRAND TOTAL				**K4,589,640**

Appendix 6

SAMPLE GRADE 7 EXAMINATION PAPER

0051783

EXAMINATIONS COUNCIL OF ZAMBIA

GRADE SEVEN COMPOSITE EXAMINATION – 2012

CREATIVE AND TECHNOLOGY STUDIES

SUBJECT 8/1 — 75 MINUTES

TD/CTS8/G7/2012

1 Read these instructions carefully.

2 **DO NOT** turn this page before you are told. Your teacher will tell you when to turn this page to begin the questions.

3 There are **60** questions in this **CREATIVE AND TECHNOLOGY STUDIES PAPER.** You will be given **EXACTLY 75 MINUTES** to do the questions.

4 For each question, four answers are given, but only one of the four is right. Work out which is the **BEST** answer. Then, on your **ANSWER SHEET,** mark the box completely by shading the answer space of the letter of your choice. If you had chosen answer D for a question, you would show it like this:-

A B C ■

5 You must **SHADE** your answer spaces **COMPLETELY** and **DARKLY** using an HB ✎ pencil. If you have to change your answer, you must rub out the shading **VERY NEATLY** before shading the new one. **USE A CLEAN RUBBER.**

6 When you have finished one page, go straight on without waiting to be told. If you have time left at the end of the question paper, use it to check your work carefully.

7 Look at your **ANSWER SHEET.** On the top left hand side is a box which should have, Examination Year, your School Number and Examination Number. It should also say **Subject 8, Paper 1.**

8 Look at your **ANSWER SHEET** again. At the bottom left hand side, it should have your Surname, Forename, Subject –**Creative and Technology Studies,** Name of Primary School and Secondary School of choice.

9 **PUT UP YOUR HAND NOW IF:** You have any question.
You have the wrong answer sheet.

You will **NOT** be able to ask questions once the examination has begun.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD.

USE ONLY AN HB ✎ PENCIL FOR YOUR ANSWERS.

©ECZ/2012/C1 — **This question paper consists of 12 printed pages.**

572081

1 Tools should always be stored properly to avoid ...

A accidents.
B dirt.
C dust.
D disease.

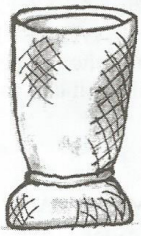
2 Performing Art can be used to ...

A disrupt messages.
B distort messages.
C communicate messages.
D repel messages.

3 When spraying vegetables, you should wear ... on your hands.

A gloves
B goggles
C helmet
D overall

4 The object shown below is made by ...



A weaving.
B moulding.
C carving.
D rubbing.

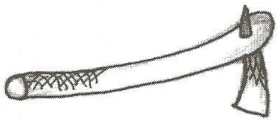
5 A good singer cannot be a good drummer. What does this statement mean? That ...

A drummers are stronger than singers.
B every person has his/her different talent.
C singers can only be girls.
D singers sing without drummers.

6 Why should pit latrines be kept clean and covered? To ...

A attract flies
B increase flies
C keep away flies
D increase maggots

7 Which one of the tools below is **NOT** a carving tool?



A

B

C

D

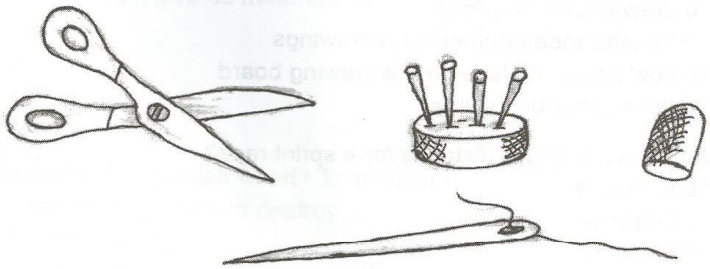
8 Which type of pollution can lead to breathing problems?

A Water
B Land
C Noise
D Air

9 Books with pictures, easily attracts interests of ...

A adults.
B boys.
C children.
D girls.

10 Where would you use the equipment below?



A The kitchen
B In needle work
C In safety work
D In woodwork

11 Carved animals are artefacts. They are made from ...

- **A** leather.
- **B** metal.
- **C** paper.
- **D** wood.

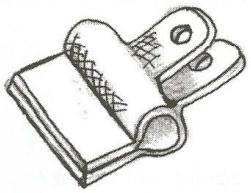
12 Which of the following material can BEST be used to design a greeting card?

- **A** Paper
- **B** Wood
- **C** Plastic
- **D** Board

13 Mr Zulu spent K170 000 to produce a door and later sold the door at K210 000. We can say that he made a ...

- **A** loss.
- **B** service.
- **C** product.
- **D** profit.

14 What is the use of the drawing instrument below?



- **A** To draw circles on paper
- **B** To transfer measurements on drawings
- **C** To hold paper in place on the drawing board
- **D** To draw construction lines

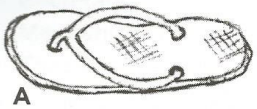
15 Which one is the BEST distance for a sprint race?

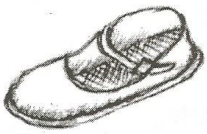
- **A** 1500 metres
- **B** 800 metres
- **C** 400 metres
- **D** 100 metres

16 Which of the following are primary colours?

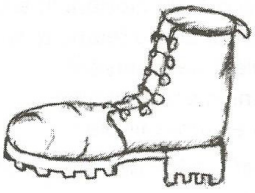
- **A** Green, Red, Black.
- **B** Red, Blue, Yellow.
- **C** Green, Blue, White.
- **D** White, Green, Red.

17 Which of the following shoes is **best** worn in the workshop?

A 

C 

B 

D 

A Tropicals
B Snikers
C School shoe
D Boot

18 When you know your customers needs and demands you can satisfy what they need by supplying •••

A beds and mattresses.
B houses and shoes.
C money and drinks.
D services and products.

19 Grass from forests give us materials for craft like •••

A carving.
B knitting.
C pottery.
D plaiting.

20 Why do craftsmen varnish wood? To make it •••

A easier for the insects to destroy.
B look attractive.
C look brown.
D look dull.

21 When we write music, we normally use a musical scale. Which is the first and last note?

A Doh
B Re
C Mi
D Fa

22 Likumbi Lya Mize in North-Western Province uses the traditional ••• for their makishi dance.

A drums
B guitars
C piano
D trumpets

23 Why are rules important in a game?

A Favour some teams to win.
B Select best players.
C Punish some players.
D To ensure fair play.

24 Which of the following colours when combined give us green?

A Blue and red
B Red and black
C Blue and yellow
D Red and yellow

25 Which skill in football puts the opposing player off balance?

A Dribbling
B Feinting
C Kicking
D Trapping

26 Which of these lines can be drawn as boarder lines?

A .....
B ~~~~~~~~~~
C ----------
D ——————

27 A sewing machine needs to be cleaned and oiled regularly so that it •••

A works properly.
B sews patterns.
C sews faster.
D looks new.

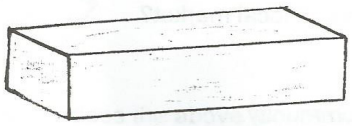
28 Judith wanted to make some products to sell in winter. Which of the following products would she sell fast •••

A rain coats.
B sweaters.
C t-shirts.
D vests.

29 What kind of job requires a uniform for safety?
- A Lawyer
- B Secretary
- C Mechanics
- D Teacher

30 Someone who identifies a need for a new product or service is an ...
- A accountant.
- B entrepreneur.
- C important person.
- D intelligent person.

31 In which form is the diagram below presented?



- A Circular prism
- B Circular square
- C Triangle prism
- D Rectangular prism

32 The two materials used to carve items are ... and wood.
- A glass
- B metal
- C stone
- D sisal

33 A large picture used for decoration and advertising something is called ...
- A chart.
- B decoration.
- C picture.
- D poster.

34 What is the BEST way to avoid contracting HIV and AIDS?
- A Avoid playing with friends
- B By abstinence
- C By using a condom
- D Sharing razor blades

35 Sisal bark, fibre, maize straw and grass can all be used in making ...

A fabrics.
B mats.
C pots.
D plates.

36 Which of the following activities is recommended before strenuous activities?

A Press ups
B Push ups
C Sit ups
D Warm ups

37 How can you identify the needs of a local market?

A Produce a lot of goods.
B Sell a lot of goods.
C Talk to the people in the community.
D Talk to the people who live far from you.

38 A seam is made by ...

A folding a piece of material at the edge.
B joining two pieces of material at the edge.
C making decorations on a garment.
D measuring the body to make a garment.

39 In sports letters PE stand for ...

A Physical Environment.
B Programmes of Education.
C Physical Education.
D People Education.

40 An advantage of door-to-door selling products is that people are ... to buy.

A discouraged
B encouraged
C extended
D remembered

41 How should a good poster look?

A Very small but clear.
B Big and dirty
C Big and clear
D Big and unclear

42 Someone washing a car is providing a ...

A display.
B product.
C service.
D sells.

43 Look at the diagram below.

In which category does the above tool belong?

A Carving tool
B Digging tool
C Marking tool
D Ploughing tool

44 A two dimensional object has ...

A width and height.
B length and height.
C length and width.
D height and width.

45 Juliana started singing a line of a song and the friends completed the line. What characteristic of music is this?

A Call and response
B Repetition
C Rhythm
D Variation

46 For a guitar to give you the pitches you desire you have to ... it.

A pluck
B tune
C play
D drop

47 Loveness bought a basket from the market. A basket is made by ...

A weaving.
B plaiting.
C knitting.
D carving.

48 Mary is able to bend, stretch and twist her body parts easily. We can say she is ...

A active.
B fit.
C strong.
D flexible.

49 ... are used to hold a pattern piece of a material before it is cut.

A Bobbins
B Pins
C Needles
D Scissors

50 Some dyes can be highly toxic. This means they are ...

A coloured.
B edible.
C good.
D poisonous.

51 In what form is the shape below?

A Two dimensional
B Three dimensional
C Four dimensional
D Five dimensional

52 How many umpires should be in a netball game?

A 2
B 3
C 4
D 5

53 In a soccer game, the ••• controls the game.

A striker
B referee
C goal keeper
D defender

54 What is used to change the colour of a fabric?

A Colourless
B Water
C Soap
D Dyes

55 The school made a team to participate in a 100m x 4 relay race. How many pupils were required to run in the race for the school?

A 4
B 8
C 12
D 16

56 What would a nurse use to protect herself from contracting HIV and AIDS while washing an open would?

A Goggles
B Gloves
C Mask
D Uniform

57 What type of design is shown below?

A Engineering design
B Graphic design
C Product design
D Visual design

58 Materials made out of wood DO NOT last long because they can •••

- **A** bend.
- **B** boil.
- **C** rot.
- **D** shine.

59 Why is colour important in design?

- **A** Does not show the different parts of an object.
- **B** It shows the best features in an object.
- **C** It creates a three dimensional.
- **D** It hides the best features in an object.

60 A greeting card is a product of •••

- **A** design.
- **B** drawing.
- **C** painting.
- **D** poster.

STOP! PLEASE GO BACK AND CHECK YOUR WORK.

Appendix 7

LETTER OF INTRODUCTION - UNZA

THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION

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

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

==========

Date: 30/07/2012

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: FIELD WORK FOR MASTERS / PhD STUDENTS

The bearer of this letter Mr./~~Ms~~ ADAMA YUKANI Computer number 531000550 is a duly registered student at the University of Zambia, School of Education.

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

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

Yours faithfully

THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION
DEAN'S OFFICE
30 JUL 2012
P.O. BOX 32379
LUSAKA

S. Kasonde-Ng'andu (PhD)
ASSISTANT DEAN (PG)- SCHOOL OF EDUCATION

Appendix 8

LETTER OF INTRODUCTION – MOESVTEE

All communications should be addressed to the Permanent Secretary, Ministry of Education, Science and Vocational Training not to any individual by name.

Telephone: +260 211 250855/251315/251283
251298/251318/251291
251306/251319

In reply please quote:

No.:.....

REPUBLIC OF ZAMBIA

MOE/101/9/4

MINISTRY OF EDUCATION, SCIENCE, VOCATIONAL TRAINING AND EARLY EDUCATION

P.O. BOX 50093
LUSAKA

31st July, 2012

The Provincial Education Officer
North Western Province
SOLWEZI

RE: FIELD WORK FOR MASTERS/PhD STUDENT, ADAMA YUKANI

Reference is made to the above captioned subject matter.

The above mentioned is a duly registered student currently pursuing a Masters/PhD programme in Education at the University of Zambia. The programme has field work component which he has to complete. He will be conducting research in schools in your Province.

We shall greatly appreciate if the relevant assistance is rendered to him.

Ester S. Chisuta (Mrs)
Acting Chief Human Resources Management Officer
For/Permanent Secretary
MINISTRY OF EDUCATION, SCIENCE, VOCATIONAL TRAINING AND EARLY EDUCATION

/em

Appendix 9

A CTS workshop turned into a consumer shop and later on into a conversional classroom

Classes go on under trees due to over enrolment at the school due to unprecedented influx of people in the Lumwana mining area.