

**Implementation of the Zambian 2013 Revised Secondary School Curriculum in
Chipata District: Winning Strategies**

BY

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**A dissertation submitted to the University of Zambia in Collaboration with Zimbabwe
Open University in Partial Fulfilment of the Requirements for the Award of the Degree
of Master of Education in Educational Management**

THE UNIVERSITY OF ZAMBIA

LUSAKA

2018

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AUTHOR'S DECLARATION

I, **Priscar Mbewe**, do hereby declare that this dissertation is my own work, and that all the works of other persons used have been duly acknowledged, and that it has never been previously submitted for a degree at the University of Zambia or any other University.

Signature: Date:

APPROVAL

This dissertation of Priscar Mbewe is approved as fulfilling the partial requirements for the award of the degree of Masters of Educational Management by the University of Zambia and Zimbabwe Open University

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ABSTRACT

The study sought to investigate the implementation of the revised 2013 secondary school curriculum had qualified teachers, available teaching and learning resources and relevant and adequate infrastructure and establish winning strategies.

The mixed method design and particularly the embedded design with more of qualitative approach was used. Questionnaires were used to collect data from secondary school teachers, open ended interviews were conducted with the education standards officers and the head teachers. Data from pupils was collected through focus group discussions and examination document analysis was conducted. Quantitative data was analyzed using SPSS and qualitative data was analyzed using descriptive statistics and thematic analysis.

The major findings of the study indicated that the 2013 revised secondary school curriculum implementation did not have adequate qualified teachers for the vocational pathways. The study also established that teaching and learning resources and infrastructure were inadequate to facilitate the implementation of the revised curriculum and to some extent affected the effective implementation of the curriculum and the performance of the pupils in exams especially in social studies at grade nine level.

However, some strategies that helped other schools effectively implement the revised curriculum despite the challenges were established. Some of the strategies included intensified monitoring, improvisation of teaching and learning resources and infrastructure development through PTA

The researcher hence made recommendations that the revised curriculum should be monitored by the curriculum specialists, provincial standards officers, and district standards officers and at school level to come up with solutions to the challenges encountered and that primary school teachers should be trained to teach the vocational and academic pathways as to strengthen the implementation from primary school.

DEDICATION

I dedicate this work to my daughters Grace and Hope for their understanding and giving me strength and support when I was busy.

To my Father, Nicholas Daniel Mbewe and My mother Hellen Sophia Banda, I say you have always been a blessing to me and I thank God for you, for your counsel and believing in me. To my sister Precious Mbewe and my entire family , thank you so much for your support and prayers for me to reach this far.

ACKNOWLEDGMENTS

Firstly, I would like to express my sincere and heartfelt appreciation to my supervisor Dr. Innocent Mutale Mulenga for offering professional guidance and exercising utmost patience in reading through the dissertation drafts. Without his guidance, the research would not have been a reality. I also wish to convey my gratitude to Dr. Gift Masaiti, the UNZA/ZOU coordinator for his guidance and support throughout my study programme.

I would also like to express my sincere thanks to my family especially my daughters Grace and Hope, mum Hellen Sophia Banda and dad Nicholas Daniel Mbewe for their love, understanding and support during the period of this study. I further express my gratitude to Lackson Lungu and Xavier Tembo for tirelessly offering guidance and editing my work. My special thanks to Bertha Mulenga for her contributions towards my success.

My acknowledgment would not be complete if I do not extend appreciations to all the respondents for having participated and contributed to the success of this study; not forgetting the head teacher, Peter Masina - St. Atanazio Primary School, for his patience and support towards this work.

Above all I thank the Almighty God for his Grace and providence, which enabled me to undertake this study.

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ACRONYMS AND ABBREVIATIONS

APU	_	Academic Production Unit
CDC	_	Curriculum Development Centre
CIPP	_	Content, Input, Process and Product
CPD	_	Continuing Professional Development
DEBS	_	District Education Standards Officer
ECZ	_	Examination Council of Zambia
ESO	_	Education Standards Officer
HoD	_	Head of Department
ICT	_	Information Communication Technology
MoE	_	Ministry of Education
MoGE	_	Ministry of General Education
PEO	_	Provincial Education Officer
PTA	_	Parents Teachers Association
TEVETA	_	Technical Education, Vocational and Entrepreneurship Training Authority
TVET	_	Technical, Vocational Education and Training
UNESCO	_	United Nations Education, Scientific and Cultural Organization
VET	_	Vocational Education Training

CHAPTER ONE

INTRODUCTION

Overview

This chapter contains the background of the study, statement of the problem, purpose of the study, objectives, research questions, theoretical framework, conceptual framework, and significance of the study, delimitations and operational definitions of terms and the summary.

1.1 Background

Zambia is undergoing rapid socio-economic development and the education sector is no exception. Education has always been perceived as a social sector, it is also an economic tool for development. In 1996, the Ministry of Education developed the National Policy on Education, 'Educating Our Future', in order to respond to the developmental needs of the nation as well as those of the individual learners. This policy has since become the basis of all the educational strategies that ensure the provision of quality education through suitable teaching and learning at all levels of the education system (MoE, 2013)

MoE (2013) asserted that since independence in 1964, the Ministry of Education, Science, Vocational Training and Early Education (MESVTEE) has undertaken three major education policy reforms in its quest to improve the quality of education provided to learners at different levels. The Education Act of 1966 was meant to overhaul the whole system in order to meet the aspirations of an independent African country. The Act paved way to some reforms in Primary and Secondary education which were aimed at standardizing and diversifying the curriculum, besides relating the content to the needs of the learners.

Mwanakatwe (2013) contended that in the broad sense, the curriculum that was devised after 1964 did not provide sufficient grounding in different subject areas to suit individual pupil interests in particular, and the nation's aspirations of satisfying entry requirement to vocational institutions, and the University of Zambia. In spite of this factor, much of the curriculum was 'nationalistic' in content while the syllabuses lacked some well-defined objectives for learning and skills development. This problem began to be tackled by the curriculum development centre after 1975.

Mwanakatwe, (2013) further observed that the picture which one gets is that during the 1980's the original aims of educational reform that involved the work and study practice, 10-year basic education, changed the school calendar to accommodate the work and study the concurrent teaching of academic and vocational work was not taking place. Only certain aspects of the 1976 draft statement recommendations had been adopted in the 1977 education reform document. The curriculum was to be revised in order to provide the life skills for the child, which would eventually see pupils at least the majority take up vocational training after completing grade nine and 12. One is even convinced that there was no reform at all in the secondary school level in terms of breaking away from the pursuit of colonial education tailored to the British model. What took place was refining the colonial curriculum in order for it to look "modern" by infusing in aims and objectives and learning, and skills training objectives in the syllabuses. This task falls on the CDC a department of the Ministry of Education in liaison with the ECZ. There was no education reform but an attempt to reform the system (Mwanakatwe, 2013).

Additionally Kelly (1999) noted that through various educational reforms, successive governments had attempted to achieve a sharper focus on skills education historically, however, there was a challenge in understanding the notion of basic skills education. The concept was understood to refer to technical and vocational training and was also seen as a departure from formal learning of such school subjects as mathematics, geography, history, English, and science. Kelly contended that throughout the colonial period, technical and vocational training and practice for Africans was relegated to the menial or bottom-ladder jobs (carpentry, bricklaying, plumbing etc.) that offered no real socio-economic upward mobility for them – unlike their white counterparts who appeared to place emphasis on studying academic subjects. At the time of independence in 1964, technical and vocational training had therefore become the most undervalued and the most underdeveloped educational area.

Consequently, MoE, (2013) noted that in the year, 2000, the Curriculum Development Centre (CDC) embarked on the school curriculum review starting with the lower and middle basic education (Grades 1 – 7). The purpose of the review was to link the school curriculum to teacher education. Specifically, the review that commenced in 2000 was meant to re-define the desired learner, the teacher educator and the teaching and learning outcomes so as to make education relevant and responsive to the individual and society.

While the primary school curriculum was reviewed in 2000, the Secondary School curriculum was last comprehensively reviewed in the early 1970s. It consisted of a small number of core subjects and a wide range of optional subjects. However, evidence from the Junior Secondary School and School Certificate Examinations results showed that almost all learners took academic subjects, with less than 15% taking practical subjects of any kind (MoE, 2013). With regard to performance, there was some improvement in the achievement levels but practical subjects, mathematics and sciences continued to record unsatisfactory results. On average, less than two-thirds of the candidates who sat for either the Junior Secondary School Leaving Examinations or the School Certificate Examinations passed mathematics each year.

However, UNESCO (2015) asserted that in addition to the provision of the Education for All policy strategic framework developed in 2004, there were several pronouncements and commitments made by the government on the importance of skills education and the development of a two tier education system with specific focus on the learners that were pushed out of the educational system. The education policy which was being developed, after Educating Our Future that came to its terminal end in 2015, was also to focus on addressing the needs of those who will not be absorbed in the formal educational system after Grade 9. This was against the background that every learner in Grade 7 will automatically proceed to grade 8 in 2016. However, the government was to create another parallel education stream under the two tier system that will cater for basic skills education (UNESCO, 2015).

UNESCO (2015), indicated that the two-tier education system introduced in 2014 under the current education reform initiative is a demonstration of the government's continuing commitment to finding a way forward on skills education. Modelled along the German philosophy of giving equal importance to academic and skills education, the two-tier system is targeted for Grades 8-12. With implementation beginning in schools that are equipped to support this new resolve, the Ministry is prioritizing improving infrastructure and ensuring that teachers are qualified to teach skills education.

UNESCO (2015) observed that to avoid another good intention falling short of its desired goal (as has been the case for basic education), the two-tier approach needs the requisite capacity to significantly raise the levels of participation in skills education. The nature and approach of implementing this system is very critical from the onset given the complexities surrounding it in the face of resource constraints. The unit cost of offering vocational education is generally higher than conventional education. Therefore, modalities need to be worked it to make it

financially manageable and sustainable in the long term. The government will also need to assess progress by establishing robust common database to evaluate the gains that will accrue (UNESCO, 2015).

Despite efforts to reform the curricular MoE (2013) observed that quality education requires the availability and use of educational materials. They noted that the current situation in secondary schools is that educational facilities and resources are not available for effective teaching and learning. Most of the teaching and learning is done theoretically, even for Practical and Science subjects and (UNESCO, 2015) supported of this view that Zambia needs to increase resources to fund activities that have an immediate impact on learning. Moreover, the recently launched revised national curriculum will require significant resources to support its implementation.

According to MoGE (2018) all the provinces except for Eastern and Northern provinces , recorded an increase in the proportion of candidates obtaining full certificates The improved performance is attributed to various interventions taken by government and other stakeholders such as recruitment of teachers on a yearly basis enhanced monitoring, developing and distribution of teaching and learning materials to support the revised curriculum and other programmes to enhance learning such as the “Catch Up” and the performance review meetings which are held at national, provincial, district, and school levels. Performance by Subject indicated the highest mean percentage score was recorded in History (69.66%), while the lowest mean percentage was recorded in commerce (19.05%). Low performance in commerce was observed over some time and the minister instructed the Directorate of Standards and Curriculum to interrogate why there was dismal performance in this subject (MoGE 2018). Performance in the four common subjects of English, mathematics, science and biology showed improvements when compared to 2016. Science recorded the greatest improvement from 32.83 percent in 2016 to 43.58 percent in 2017. This was attributed to the fast tract training of teachers, introduction of a practical examination, abolishing of a complete theory multiple choice question paper and having two separate theory papers for chemistry and physics following the revision of the curriculum. MoGE (2018) Report further indicated that the performance in Pure Sciences (Chemistry and Physics) and Computer Studies was very good with 88.04 and 87.42 percent of Candidates passing respectively.

Furthermore, MoGE (2018) reported that performance according to the subject groupings showed that the best performance was in practical subjects. It was noted that the performance

of boys and girls during the 2017 and 2016 session in practical subjects was comparable especially in Art and Design; Physical Education; Fashion and Fabrics and Musical Arts Education. The second best performance according to subject grouping was in Literature and Languages Social and Business Studies and lastly in the Natural Science category. The lowest performance was observed in Mathematics and Agricultural Science. MoGE (2018) Indicated that Mathematics and Agriculture science had proved to be a challenge to the learners under the revised curriculum.

However, apart from learners having challenges in Mathematics and Sciences subjects, learners in Chipata district schools recorded poor results in various subjects. Good performance was recorded in some schools of Chipata district in different subjects while other schools recorded poor performance as indicated in the PEO Eastern Province exam analysis for 2017 (MoGE 2018). Below is the 2017 examination analysis for Chipata district.

Table 1.1: Chipata district 2017 PEOs Examination analysis (MoGE, 2018).

BIOLOGY

School	Sex	Entered	Sat	Absent	Passed	Pass %
Katopola	M	128	125	3	82	65.6
	F	73	73		38	52.1
	T	201	198	3	120	60.0
Maguya	M	39	38	1	11	28.9
	F	6	6		1	16.7
	T	45	44	1	12	27.3

COMMERCE

School	Sex	Entered	Sat	Absent	Passed	Pass %
Chipata day	M	194	174	20	105	60.0
	F	124	115	9	54	47.0
	T	318	289	29	159	55.0
St Magrets	F	36	36	0	36	100
	T	36	36	0	36	100
Mboza day	M	37	35	2	24	68.6
	F	12	12	0	7	58.3
	T	49	47	2	31	66.0

	WOODWORK					
School	Sex	Entered	Sat	Absent	Passed	Pass%
Chizongwe	M	42	32	10	30	93.8
Chipata day	M	59	34	25	23	67.6
	F	29	19	10	13	68.4
	T	88	53	35	36	67.9

From 2017 Chipata district examination analysis, there is an indication that the revised curriculum implementation is facing some challenges in some schools while other schools have maintained good performance in the district. Some schools recorded poor results in biology, commerce and woodwork while other schools recorded excellent results. Most schools in Chipata district teach biology while few schools teach woodwork and commerce and the presented subjects recorded poor pass percentages in other schools while other schools had good results. The researcher therefore attempted to investigate the winning strategies for implementation of the revised 2013 secondary school curriculum in selected schools of Chipata district

1.2 Statement of the Problem

The overall research problem addressed in this study is that despite interventions taken by government and other stakeholders such as recruitment of teachers on a yearly basis enhanced monitoring, developing and distribution of teaching and learning materials to support the revised curriculum, it appears little or no studies have been done to assess the implementation of the revised 2013 secondary school curriculum in Zambia. MoGE (2018) reported poor performance in some subjects and contented that mathematics and agriculture science are facing challenges in the revised curriculum while the best performance was noted in practical subjects. However, The Ministry of General Education acknowledged the importance of teaching and learning resources in curriculum implementation (MoGE, 2013). Despite efforts by the government in the provision of teaching and learning resources and teacher recruitment, it appears schools still face some challenges in curriculum implementation. Mwanza (2017) contended that lack of teaching and learning materials hindered effective implementation of the curriculum. However poor grade 12 exam results recorded in some schools in Chipata district raises a concern in the effectiveness of the implementation of the revised curriculum.

Hence if this issue is not treated with the urgency it deserves the provision of quality education is likely to go down in Chipata and make it difficult to achieve education for sustainable development goal number four.

1.3 Purpose

The purpose of this study was to investigate the implementation of the revised 2013 Secondary School curriculum in Chipata district and establish winning strategies.

1.4 Objectives

The objectives of this study were;

1. to investigate the availability of trained teachers for the implementation of the vocational career pathways in Chipata district schools.
2. to assess the provision and availability of teaching and learning resources for the implementation of the revised 2013 secondary school curriculum in Chipata district.
3. to evaluate the relevance of adequate and suitability of infrastructure for the implementation of the revised 2013 secondary school curriculum in Chipata district.
4. to establish winning strategies for the implementation of the Zambian secondary school revised curriculum in Chipata district.

1.5 Research Questions

The study sought to answer the following questions;

1. To what extent were trained teachers available for the implementation of the vocational career pathways in Chipata district schools?
2. How was the provision and availability of teaching and learning resources for the implementation of the 2013 revised secondary school curriculum in Chipata district?
3. To what extent was adequate and suitable infrastructure relevant for the implementation of the revised 2013 secondary school curriculum in Chipata district?

4. What winning strategies would be established for the implementation of the revised 2013 secondary school curriculum in Chipata district?

1.6 Theoretical Framework.

This study was guided by the CIPP (Content, Input, Process and Product) evaluation Model.

Stufflebeam and Zhang, (2003) suggested that the CIPP evaluation model provides direction for assessing a programs context, inputs, process and products. Unlike many other evaluation approaches, the CIPP model asses not only on enterprises outcomes but also its environment, goals, plans, resources and implementation (Stufflebeam and Zhang, 2017). The application of the (CIPP context, input, process, product) evaluation model to this study can be understood in such a way that the curriculum needs a defined process to achieve the objectives. For instance, the inputs stage will focus on assessing the availability of adequate trained teachers, in-service training of teachers, and provision of teaching and learning materials adequate infrastructure. The process stage will act as a guide to allocation of time to the two tier system program according to the time table approved by the Ministry of General Education, assessments and monitoring of the implementation by Education Standards Officers, School Head teachers and Heads of Departments, an investigation of the challenges encountered, and the product relates to the attainment of the objective in this case the knowledge and skills by the learners for sustainable education development. The CIPP evaluation Model will therefore provide a guide to this study

Patil and Kalekar (2015) asserted that (CIPP) Context, Input, and Process, Product approach basically provides a very systematic way of looking at many different aspects of the curriculum development process. Although originally advocated for curriculum development process, it can be effectively used for school evaluation. For school education the kind of knowledge, skills, attitudes, habits that students acquire in their educative process is the actual product. There are various processes carried out in the school to get this product. Certain inputs are given to carry out these processes. All this i. e. input, process and product work under some context. “When we talk about school education in rural area and in urban area, the context in which the two different schools work is different”, (Patil and Kalekar 2015). The CIPP model can be applied to assess various aspects of school for evaluation of different programs. For instance, in this study, the CIPP Model will guide to assess the implementation of the revised

2013 Curriculum in different schools and assesses the input aspect, context and product as earlier explained.

1.7 Conceptual Framework

A conceptual framework according to Ravitch and Riggan (2012) is a series of sequential, logical propositions the purpose of which is to conceive the reader of the study's importance. Miles and Huberman, (1994) cited in Ravitch and Riggan (2012) suggested that the building of theory relies on central broad constraints or categories which they referred to as intellectual bins, that contain multiple, discrete events and behaviours. The conceptual framework in figure 1.1 indicates the link in the implementation of the revised 2013 and what may happen if there are adequate trained teachers, infrastructure and instructional resources. The effective implementation of the curriculum is measured by the examination results as noted by MoGE (2018). Therefore, for the implementation to be effective, there should be qualified teachers, educational materials and improved infrastructure, (Education for all 2015 National Review Report), (UNESCO, 2015).

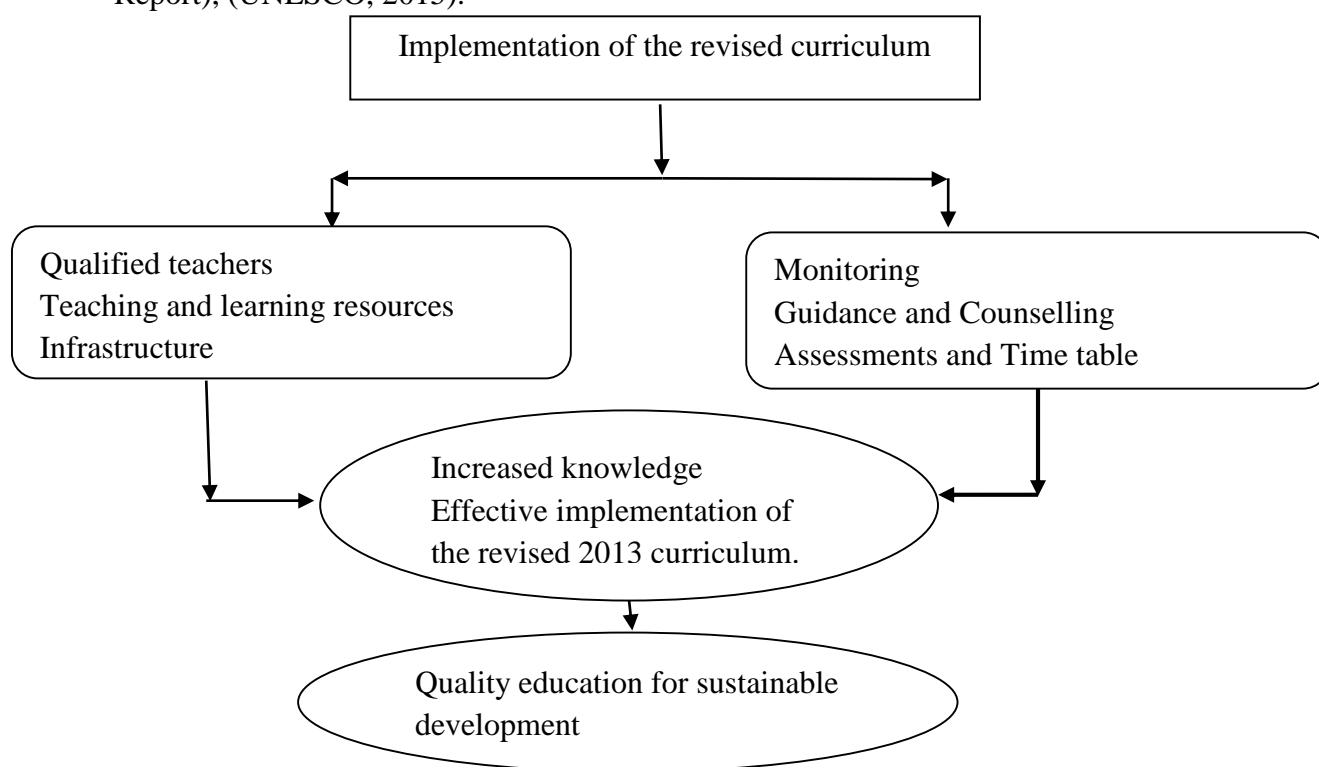


Figure 1.1: Conceptual framework

1.8 Significance of the Study

The findings of this study may be beneficial in a number of ways. The study may benefit the Curriculum Specialists, District Education Board Secretary, Head teachers and teachers in Secondary schools. The findings of the study may inform the curriculum specialists on the importance of evaluating the adequacy of the instructional materials and the need of teacher training in the implementation of the revised 2013 curriculum. This study is likely to inform the District Education Board Secretary and Head teachers on the need for teaching and learning resources, adequate infrastructure and adequate trained teachers in schools. Furthermore, this study may inform the District Education Board secretary and school Head teachers on the importance of In-service training for teachers, continuous professional development meetings, workshops, and monitoring for the effective implementation of the revised curriculum. This study may contribute knowledge to the existing literature on the effective implementation of the two tier education system and may highlight areas of the implementation of the revised curriculum which might require further investigations.

1.9 Delimitations

The study will be limited to the implementation of the revised secondary school curriculum in selected schools of Chipata urban and Peri-urban schools.

1.10 Operational Definition of Terms

Two tier system: A combination of vocational and academic subjects taught in schools.

Revised curriculum: An approach in the secondary school education system with the vocational carrier pathways.

Academic Pathway: learning experiences that are cantered on subjects like in social sciences.

Vocational Pathways: learning experiences that have practical components.

Winning Strategies: Solutions to successful implementation of a revised curriculum.

Summary

In this chapter, the following have been presented; background of the study, statement of the problem, purpose of the study, objectives, research questions, theoretical framework,

conceptual framework, and significance of the study, delimitations and operational definitions of terms. In the next chapter, the researcher will review literature from different dimensions.

CHAPTER TWO

LITERATURE REVIEW

Overview

In chapter one, the researcher discussed the introduction to this study, in this chapter, the researcher reviewed literature from different dimensions. The researcher firstly discussed thinking of scholars about the implementation of the two tier education system, secondly literature was reviewed from the global perspective followed by literature from African continent, from Zambia and from the Eastern Province of Zambia.

2.1 Thinking of Scholars on Curriculum Implementation

Ngarogo, (1996) defined curriculum as a planned course of study that provides the learner with some learning experiences under the guidance of the school. Curriculum development is a process which determines how curriculum construction will proceed, its attempts to change the existing curriculum to respond to the changing needs of the children and society. It includes a repeating policy of planning based on national policies, production of instructional materials and implementation of the programs through the allocation of available resources (Ngarogo, 1996).

However, for any given curriculum to be effective it has to be maintained. Wiles, (2009) claimed that simple curriculum maintenance at school level is not easy and can be a full time Job if not done correctly. Any number of recurring tasks will determine the readiness of the school to deliver the planned curriculums intended and without tip-top maintenance, the curriculum can be distorted and even inefficient. The school curriculum leader serves a bridge for both upward flow and downward flow of inquiry of information. He indicated that another very important maintenance task in any school is to ensure compliance with changing laws that govern education. Such laws may address the subjects in schools, monitoring student's achievement, class size requirements or even the required resources for specific student's populations. The study noted that effectiveness of the curriculum implementation needs maintenance hence the researcher is prompted to investigate the implementation of the revised 2013 curriculum to establish ways in which it can be maintained.

In all schools, staff development programs can help connect curriculum plans with classroom instruction. Assessing student's achievements gains for example may identify some learning skills that are not being taught well, once the weakness of the curriculum is identified, the curriculum leader can schedule training sessions to improve faculty knowledge in those areas (Wiles, 2009). Jacobs, (2010) agrees with Wiles, (2009) that the curriculum should not only focus on the tools necessary to develop reasoned and logical construction of knowledge in our various fields of study, but also should aggressively cultivate a culture that nurtures creativity in all of our learners. In our work to improve education, we need to be bold advocates for creative ideas that are actionable, rational and constructive.

Cookson, Borman, Sadovnik and Spade, (1998) suggested that academic work related curricula must be integrated, rigorous, and demanding and place high expectations on students. They contended that programs should be built on solid foundations of both academic skills and work readiness skills. They further stated that requiring high-quality standards for academic achievement is necessary not only for successful employment but to ensure that students can access a range of postsecondary options.

Wendy and Gayton, (2009) observed that education in Poland is not simply driven by a concern for pupil's development as in most, if not all other countries, the education system is also strongly influenced by the need to educate the workforce of the future. This is particularly so for countries which are seeking to modernize quickly and develop their economy, this practical need also impacts on teachers and teacher educators and has influenced a more practical approach to new national curriculum.

2.2 Global Studies

Pilz, Berger, and Canning, (2008) conducted a comparative research project on pre-vocational education in lower secondary schools in seven European countries. The primary aim of the study was to better understand how the formal pre-vocational education curriculum is interpreted and shaped by individual teachers. The countries covered were Austria, Germany, Hungary, Latvia, Poland, Portugal and Scotland. Two research methods were used. First, a content analysis of the relevant curricula was carried out, focusing on how, and to what extent, pre-vocational education competencies are embedded in the official curriculum in the seven countries covered by the study. Second, 75 teachers took part in qualitative expert interviews about their implementation of the relevant curriculum. Their findings were different according

to the countries. The Polish teachers claimed that curriculum being taught was based on the availability of textbooks and on whether the teachers actually opted to use such textbooks. In the case of Hungary, teachers could opt not to use the textbooks available and rely instead on their own materials. This tended to lead to a wide range of practice within the schools surveyed: In Latvia and Portugal, it was up to the teachers to decide whether they taught the pre-vocational curriculum at all. In Portugal, many decided not to do so, believing the students were too young to engage in such activities. In Austria, meanwhile, the teachers tended to concentrate on covering the basic Economics curriculum and left the development of self-competencies and social competencies to the careers guidance staff. When interviewed, teachers in Germany and Scotland articulated a clear preference for teaching pre-vocational education in an educationally meaningful way. In Germany, for instance, many teachers saw it as an opportunity to broaden their students' awareness of citizenship issues:

Pilz, Berger, and Canning, (2008) suggested that in Scotland, the intention was to develop generic capacities that would build students' confidence and transferable skills: teachers believed that they were in a position to do this and were perfectly able and willing to make decisions concerning their students that went beyond the pre-vocational curriculum laid down by national and regional bodies. Teachers from Germany and Scotland seemed much more concerned than those from other countries with the wider social and welfare issues affecting their students.

The second relevant (and disquieting) issue to emerge from the interviews was the apparent lack of training for teachers in pre-vocational education. Many claimed that they had covered only the basic theoretical knowledge in Economics and had little experience in the areas of self-competencies and social competencies. Many had had no work experience outside education since completing their teacher training and, therefore, felt ill equipped to teach the subject. In Scotland, this meant employing college lecturers to teach occupational skills within schools: The low status and poor pay of teachers in some post-Communist countries tended to exacerbate these concerns and added to the difficulties associated with the lack of expertise in teaching this subject area within schools: Many believed that they were already too overstretched by the existing curriculum to respond to the needs of an additional subject that was not, in fact, formally assessed as part of the national curriculum. In general terms, the actual implementation of the curriculum across the countries surveyed depends on both the individual

school and the individual teacher(s) involved. Most of the teachers interviewed across all countries agreed that more time is needed to implement the curriculum adequately: The studies indicated a clear inadequacy across the board in the training and in-service training of teachers when it came to pre-vocational education as well as general economic and business teaching: Many of the teachers interviewed said that if they had studied these areas at all during their training, the syllabus covered only basic economics and had not given them any pedagogical skills to help their students develop self-competencies and social competencies. (Pilz, Berger, and Canning, 2008)

The study is important because it highlighted teachers' perception towards the implementation of the curriculum in those countries where the research was done. It indicated that teachers' schools did not have challenges with other factors like infrastructure and funds to implement the curriculum but teachers had to choose what to teach. It will help this study to assess teachers' perception towards the implementation of the revised curriculum in secondary schools of Chipata district the study indicated that teachers from other countries like Germany and Scotland had no problem in implementation of the school curriculum and were doing fine than other countries. However, it emphasises on the need of training of teachers in prevocational courses as the teachers indicated that they did not have the courses in their training and could not help the students. The reasons discussed could be of help in the success of implementation of the revised secondary school curriculum in Chipata district.

Another study conducted in Malaysia by Minghat, and Yasin, (2010) intended to determine the elements of Sustainable Development in Technical and Vocational subjects and to develop the framework of sustainable Technical and Vocational subjects in secondary school. The research was carried out using a qualitative research method that involved participation from 12 experts purposively chosen according to their positions. Interviews guided by interview protocol were employed in data gathering. The findings revealed 16 elements that contributed to the framework. The elements discovered for an effective framework were creativity, innovation, networks and partnerships, staff development programme, teaching methods, generic skills, industrial relations and internships, counselling, entrepreneurship, ICT skills, interest, recognition, knowledge, competency based training, articulation, and commitment of management.

Danniel, (2010) investigated vocational education and training in secondary schools in Papua New Guinea. The study focused on the importance of vocational education and training, as opposed to the traditional academic subjects. Interview were conducted on both the students and teachers and their findings were that most students held academic subjects in high esteem rather than VET subjects. As a result, their participation level in VET subjects dropped substantially whilst their participation in academic subjects increased, resulting to a huge gap.

However, the findings also reviewed that most teachers were teaching general academic subjects while only a few unqualified teachers taught less costly VET subjects. Teachers reported that not all VET courses were taught at school level due to lack of qualified teachers, lack of space and teaching facilities. They claimed that not much effort was put in to designing the Academic and VET curriculum by educators with industry support. Although most curriculum materials developed at the education department curriculum division unit, a few teachers had their way in developing some curriculum content (Daniel, 2010).

Furthermore, Daniel, (2010) reported that Head teachers admitted that the students who took VET did not fully acquire Basic VET skills in the most important VET areas. The schools did not have facilities to engage students in practical training. There was very little strategy in place that enabled students to reinforce, expand and apply academic knowledge and VET skills in a variety of settings to solve situated and real problems. Some practical skills courses were taught by unqualified teachers. Schools however were not doing what they were supposed to do because of lack of resources, facilities, funding and qualified teachers.

The study by Daniel can be relevant to this study because it will help assess the role of administrators in helping the successful implementation of the Zambian secondary school revised curriculum in Chipata district. The study also revealed that students did not have interest in vocational subjects and vocational subjects were not taught due to lack of qualified teachers. The study will help to investigate the qualifications of teachers in teaching both vocational and academic pathways and to investigate if the pupils receive guidance and counselling services in picking the career pathway in the secondary schools of Chipata district.

2.3 Studies in Africa

Suobere, (2008) conducted a study to identify the constraints to the effective implementation of vocational education program in private secondary schools in Port Harcourt Local Government Area of Rivers State in Nigeria. The main instrument for data collection was a

questionnaire administered to about 20% of the target population of teachers and students in the Rivers State area. The findings revealed a dearth of professional and qualified teachers for the teaching of vocational/technical subjects; inadequate infrastructure and equipment in schools; insufficient instructional materials and books in schools; and that schools were generally poorly financed. He further suggested key recommendations are that adequate infrastructure should be provided in schools so that they are properly equipped for functional teaching and learning, and that an 'enlightenment' campaign should be carried out in the society to emphasize the importance of technical and vocational education.

The studies take a different perspective from the global perspective on the implementation of the curriculum. The global perspective identified the major challenges as lack of qualified teachers and to some extent teacher's perspective towards the implementation of the curriculum. Suobere (2008) revealed that inadequate infrastructure, teaching and learning resources and poor financing of the schools as the barrier to effective implementation of the school curriculum in Africa. It will help assess the implementation of the revised curriculum in secondary schools in terms of infrastructure, teaching and learning resources and if the schools are adequately financed in Chipata district.

Adewale, et al (2011) reported in their study to assess the attitudes of teachers and students towards vocational subjects and the factors affecting these attitudes that 42.1% of teachers who participated in the study agreed that the curriculum was not comprehensive, 23.7% were uncertain and only 34.2% disagreed with this statement. They suggested that it is therefore apparent that the curriculum needed to be better developed in order to meet the standards necessary for proper training of students. 27.8% teachers stated that students did not have access to modern equipment, while 51.2% stated that they did. 10% of teachers reported that students did not learn enough skills from the vocational subjects while 80% reported that the students learnt enough skills.

In their study, teachers who participated agreed that vocational subject learning would help in the economic development of both the individual and the country and students can continue a career in vocational skill learning. However, 3.9% did not agree that all teachers should offer vocational subjects and 32.6% agreed that vocational subjects should be offered by those who wish to offer them. 21.4% also stated that the school management did not encourage vocational subjects learning. However, 42.9% reported that students did not show interest in vocational

subjects although 48.8% of teachers agreed that students performed better at vocational subjects than other subjects. 41.9% of teachers however reported that vocational subjects took more time than other subjects (Adewale, et al, 2011).

However contrary to administrator's perception on vocational subjects, Adewale, et al, (2011) indicated that a positive attitude towards vocational subjects was shown from students. 87.8% reported that they enjoyed vocational skill-learning and 81.1% agreed that the tasks given were easy. 89. % also reported that they had self-confidence in carrying out the vocational skill learning tasks. However, 52.8% reported that vocational subjects were difficult for them to understand, only 9.9% reported that they hated vocational subjects. .9% of students reported being able to successfully recreate at least 1 of the vocational training skills/crafts they were taught in the vocational classes. Although 9.4% reported that they did not intend to continue making crafts after secondary school, 14.4% reported that they would continue making crafts before their university degree, another 14.4% during their university degree, 22.1% after their university degree and 38.7% reported that they would continue practicing crafts learned forever. The study indicated a general willingness to practice and use the skills learned in vocational training. Results indicated that students understood the importance of vocational training as 94.4% agreed that the skills are useful in life while 75.7% reported that they can continue a career in vocational skill learning. 90.1% of students reported a desire to improve their performance in vocational subjects.

Furthermore, Adewale, et al, (2011) contended that results showed that students and teachers recognized the importance of vocational education, understand its benefits, and have generally positive attitudes towards vocational subjects. They claimed that based on the findings, the motivation and involvement of staff in the vocational training of students positively impacts on the attitude of students towards vocational subjects. It was deduced that it also increased the likelihood of students to participate in the classes and therefore learn more as active participation is important in practical classes, which vocational subjects usually consist of. However, a negative aspect was pointed out from the school management which did not seem to encourage vocational education and they contend that it was influencing funding and provision of instructional materials and equipment for vocation subjects. It was also discovered that teachers did not have any added vocational training qualification and this was influencing the quality of the training that the students received and affected the students' attitude. This study will help examine student's attitude toward the learning of the academic and vocational

subjects in secondary schools of Chipata district and the role of teachers and administrators in ensuring the effective implementation of the revised curriculum in secondary schools.

Winston, Nonnie and Emmanuel (2016) conducted a study to investigate about collective efficacy and the implementation of a new curriculum in South African schools. The study focused on teacher perspectives on the implementation of new curriculum in South African schools. The study was conducted using a sample drawn from three poorly resourced schools in the Eastern Cape, South Africa. Quantitative data were generated through questionnaires and the analysis suggested that school teachers believed that collective efficacy impacts on the efficiency with which a new curriculum is implemented in schools. From their empirical research, it was established that the way teachers in the sample schools perceived collective efficacy had a strong influence on their ability to implement curriculum changes in the classroom. This implied that education authorities at national, provincial and district level needed to put measures in place to improve collective efficacy in schools, as this could be expected to support teachers' ability to implement curriculum changes effectively in classrooms. In discussing the relevance of this study, it can be assumed that the state has a role to play in the successful implementation of the *Zambian Secondary School Curriculum* in terms of financing schools for resources and infrastructure development in Chipata district.

Gwembire, et al (2013) conducted a study to assess the impact of vocational education policy in secondary schools of Rushinga District rural communities in Mashonaland Central Province in Zimbabwe identified barriers to effective implementation that most of the teachers had no vocational education qualification and were in most cases teaching subjects for which they did not train. They discovered a mismatch between subjects that the respondents trained to teach and those they were actually teaching and stated that it clearly showed negative effects on curriculum implementation. Thus, the teachers lacked subject mastery and could not impart appropriate skills to the learners.

The findings in this study also identified resource inadequacy as a barrier to effective implementation of the curriculum. These resources include syllabuses, textbooks, teaching aids, workrooms, tools, consumables among others. Considering that most of the teachers were not qualified, implementation of a new vocational education curriculum was impossible.

However, they contend that, teachers lacked guidance by way of staff development and in-service training courses. In view of the fact that most respondents were untrained and inexperienced, lack of guidance was a serious barrier to curriculum implementation for

implementers lacked direction. Thus, the respondents were not properly directed in interpreting the new vocational education curriculum for quality output, in terms of skilled vocational education pupils.

However, the findings reviewed that most respondents were not supervised by Education Officers who in most cases were subject specialists. The teachers lacked direction and essential feedback from experts for them to correct weaknesses and improve on their strengths. They noted that constant supervision of curriculum implementers was necessary to bring about quality learning of vocational skills. They suggested that after supervision, the supervisors can establish training needs for the teachers. The study will help assess the attitude of the standards officers in monitoring the implementation of the revised curriculum in secondary schools of Chipata district and suggest the need for intensified training in subjects which do not have qualified teachers.

Additionally, findings in the study revealed that there was no communication between HEXCO and secondary schools. This disorganization had made the school administrators and teachers of vocational subjects to lose sight on how to go about the vocational education business.

Another factor that the respondents believed to have a bearing on the implementation of vocational education curriculum was their non-involvement in syllabus design and marking of HEXCO examinations. They suggested that when teachers are involved in the designing of syllabuses, they can be made to feel that they are part and parcel of the decision-making process. Involvement of teachers in decision-making is central for effective implementation of the curriculum for they tend to effect the syllabuses with much confidence. Also, as teachers are involved in marking final examinations, they can learn new techniques of the examinations and the discussions held when moderating examination papers can act as an effective staff development measure for staff growth (Gwembire, Katsaruware Rumbidzai Debra, 2013).

Asibey, (2015) conducted a study in Ghana to investigate the implementation of technical and vocational education. The study sought to uncover the challenges that militate against the successful implementation of technical and vocational education and training (TVET) in Ghana at the school level and to describe the challenges from the perspective of the school leadership.

Qualitative inquiry was adopted for the study, the study sampled eighteen participants from three schools in the Ashanti region of Ghana to be a representation of a very large population.

, open ended questions were administered on focus groups. Briefly, the study dived into the historical background of TVET in Ghana, throwing light on the efforts made by successive governments since colonial Gold Coast to present day Ghana in making TVET what it is now. Some literatures on the various landmarks on the evolution of TVET in Ghana were reviewed. From the analysis, negative perception of TVET in Ghana had serious repercussions on the quality and sustenance of TVET in Ghana. The bad perception of TVET had negatively affected the enrolment of students into the TVET program since parents and students lacked interest in it. Apart from this, the perception had resulted in a situation whereby only the poor and the academically weak students were enrolled in to undertake TVET.

However, the studies established that the perceived traditional roles for women and men in Ghanaian society had negatively affected the enrolment in TVET programs, since those who took up trades that were believed to be the preserve of the opposite sex were stigmatized. It was purported that traditional roles perceptions had contributed to the low enrolment in the TVET programs. In addition, teachers and students were psychologically affected by the gross disrespect shown to TVET by the Ghanaian society.

Other major challenge confronting TVET in Ghana was the lack of government's commitment in funding TVET and the unfair modalities of disbursement of funds (based on the number of students). They commented that leaving TVET funding for parents and students can be unreliable and disadvantageous to student from poor economic backgrounds. Again the bureaucratic processes in securing funds for practical lessons at the school level could be frustrating to teachers resulting in many of them giving up on practical lessons.

Lack proper infrastructure and teaching and learning materials for TVET continued to limit the scope of TVET in Ghana and significantly contribute to the poor performances students at their final examinations and eventually limiting the number of student who could potentially make academic progression in the higher institutions of learning. The continuous use of outmoded tools and equipment and the absence of maintenance culture in secondary and technical schools in Ghana deepen the woes of TVET.

They also claimed that poor quality content of the TVET syllabi and school authority inability to initiate any changes in the content on their own was the reason for the unending turning out of graduates, whose experiences are parallel to the demands of the job market, thereby increasing the rate of youth unemployment among school

leavers. Substandard teacher training had resulted in the production of teachers who themselves could not handle the content of the TVET.

The study also claimed strict bureaucratic processes in the administrative structure in Ghanaian education system continues to kill the creative and initiative spirits of teacher's school heads, resulting in the stunted growth of TVET in Ghana. The rigidity in preparing students as compared to the flexible and the dynamism in our world of today makes it difficult for teachers effectively plan their lessons for these relatively weaker students and the results at the end of the day were poor and unripen graduate who fail to impress in the world of work, contributing to the bad image the society holds against TVET.

A different perspective from other African countries was observed in Kenya in terms of assessments of the implementation of the secondary school curriculum and funding from the government. Kahera, Julia, Ziganyu (2010) investigated factors affecting curriculum implementation in secondary schools in Kenya. Students were interviewed on how often they sit for exams and Responses from students on how often they sat for examination indicated that most schools 73% take three exams in a term and 27% take two exams. It was established that with the new policy, the government is strongly attributed to the increase in the number of examinations done per term as opposed to previous years. This has enabled most schools to be able to test their students adequately. It was established from most heads that government funding on tuition had eased pressure related with inability of parents to pay for the same.

Although frequency of assessments varied from school to school, it was established from HoDs that quality and standards are maintained through preparations of schemes of work; setting quality exams, vertical teaching, and taking common exams in the district especially with the examination class. In addition, internal supervision and assessment by HoDs was also in place. However, the studies contend that there were irregular school visits due to inadequate staffing at the District. It was also established that the road network in the district was poor and impassable during the wet season discouraging accessibility to some schools.

However, barriers to effective implementation were also identified and among them was Inadequate staffing which was seen as one of the greatest challenges in implementation of policy. 50.9% of the students viewed inadequate facilities as a factor affecting learning and inadequate staffing took 38%. Discipline was also mentioned by students taking 21% of the factors affecting learning. It was claimed that student's opinion on provision of adequate facilities would enhance learning also took 50.9%. Enrolment in schools had increased due to

funding support from the government such that there were too many students in a class. Most of the schools had over 200 students, 24% had between 100 to 200 students, 32% have between 201 and 350 students and 32% have over 351 learners. Practical lessons in some schools that were not established experienced difficulties because of lack of laboratories. Others had laboratory rooms that were incomplete because they were community development fund (CDF) projects awaiting completion.

Technological changes were also viewed by HoDs as a factor affecting curriculum implementation. Some teachers resisted change and continued doing things the traditional way. The study further indicated suggestions from HoDs there should be regular in servicing of teachers in all the areas presented by the curriculum. It was noted that science subject teachers regularly organized trainings and head teachers too received in service training on management issues that should be extended to other subjects. The study is important because it suggests that to successfully implement the revised curriculum there should be adequate funding, in-service training, consistency in monitoring of the program by education standards officers, adequate preparations of assessment and discipline among many factors. The revised curriculum for secondary schools in Chipata district can be successfully implemented if some of the measures highlighted for successful implementation are put in place.

2.4 Studies in Zambia

To successfully implement the secondary school revised curriculum, schools should be adequately funded as indicated by Kakupa, (2017) who conducted an ex-post analysis of the secondary education vocationalization policy in Zambia. The study employed document analysis strategy involving a scrutiny of both secondary and primary data sources. The author first identified and analyzed a number of published articles, books, book chapters, magazines, policy memos and leaflets on vocationalization efforts in African Secondary Schools.

The study findings indicated that the creation of the vocational track in the secondary education of Zambia faces a very difficult implementation process. While the reform is well intended, it needed careful planning. It was observed that the academic track already had problems of insufficient funding, poor infrastructure, low staffing levels, low access, and generally poor quality of education at all levels. The addition of another career track will likely complicate the already existing problems in the education sector. The quality of education for both tracks will suffer more from the anticipated resource challenges. Kakupa suggested the need to first

improve the academic track by building more schools to accommodate the rising demand for secondary education.

Kakupa, (2017) observed that, vocational education appeared not to offer sufficient benefits worth spending on, as is usually implied. The evidence does not seem to validate the conventional thinking that practical subjects will automatically facilitate employment. Although some studies, have found skills which focus on personal growth (such as critical thinking and self-motivation) to facilitate self-reliance attitudes, such skills do not necessarily require a separate pathway in order to be taught.

Considering its cost and the current state of Zambia's economy, the vocational pathway will not be easy for secondary schools to implement. Even the few technical secondary schools, where it has been introduced, will definitely require new infrastructure and equipment in order to meet its demands. They claimed that without fully investing in new infrastructure, the implementation of the vocationalization policy is more likely to hurt the academic pathway. While the dual-career pathway may be successful in Germany and elsewhere, there is no basis for believing that it will equally be successful in Zambia.

Nambela , (2016) evaluated the effectiveness of the revised curriculum on the provision of quality secondary education in selected schools in Kitwe District, the findings showed that majority of teachers regarded the physical environment in schools as being less conducive for effective teaching and learning especially with regard to practical and other newly introduced subjects in the revised curriculum. The results showed the ministry of education was quick in implementing the revised 2013 curriculum when it had not yet improved the learning conditions for quality education to be attained.

Nambela, (2016) contended that despite efforts by the education system to implement the curriculum which was skilled based, learner centred and holistic in nature, there was still a challenge in terms of providing quality teaching and learning resources. The most common reason indicated by respondents was lack of financial resources. The issue of inadequate funding to secondary schools was a larger extent a hindrance to effective implementation of the 2013 revised curriculum particularly with the newly introduced subjects.

It was also indicated that majority of the schools had high ratios which attributed to over enrolments and inadequate teaching staff. The over enrolment in secondary schools meant that

the teaching and learning facilities were inadequate to accommodate the increased number of learners leading to overcrowded classrooms, unpreparedness and resistance was also shown in the study by the way some educators responded about the revised curriculum that they needed more time to learn and adjust the revised curriculum before it was implemented.

On a positive side, findings of the same study showed that most participants indicated that they had received tremendous support from the subject advisors and various educators at workshops, conferences, seminars, teacher group meetings both in school and at district resource centre which implied educators were being supported by understanding the revised curriculum by DEBS team and at school management.

Parents and teachers also play an important role in assisting student's choice on the career pathway to take in school as reported by Harbourne, (2014). There is a very obvious disconnect between what schools and parents think is desirable in the world of work and what employers want and need from their recruits. Research commissioned by Edge and City & Guilds found that nearly three-quarters (72 per cent) of employers see vocational qualifications as essential for improving the skills of young people and preparing them for work. Sadly, however, our research showed that just a quarter (27 per cent) of parents judged vocational education to be worthwhile and only half (51 per cent) of parents encouraged their child's choice to pursue vocational qualifications.

Schools also failed to support their students' decisions to take vocational courses with only a third (35 per cent) of vocational learners saying they felt they had the backing of their school compared to two thirds (65 per cent) of students who had taken academic options. Most worrying of all was that nearly a quarter (22 per cent) of students were told they were 'too clever' for vocational education. Overcoming this disconnect is the difficult bit. They emphasized that everyone has their part to play, from the learner to the government. They suggested that revised government guidance on careers advice could help, provided schools took it on board. They asserted that the worry is they will continue to steer students in particular directions – towards A-levels and university, for example – instead of letting them make their own fully informed decisions. The studies discussed suggestions to improve the challenges faced in schools. It was highlighted that on a much more positive note, encouraging employers to talk to young people about careers was really a good idea. Research by the Education and Employers Taskforce showed the positive benefits of careers talks, visits to industry and work experience.

Chanda, (2016) conducted a study in Kafue district to assess perceptions of stakeholders towards the academic and vocational learning pathways in selected secondary schools. The findings indicated that stakeholder's perceptions towards academic and vocational pathways were good despite the fact that schools chose to take a certain pathway based on the availability of suitable infrastructure. It also reviewed that stakeholders had limited information regarding the subject combinations in each learning pathway hence revised curriculum was received with mixed feelings learners were not allowed to choose pathways instead the guidance and career department allowed classes for them without considering learner's abilities and potentials.

Chanda, (2016) indicated that perceptions of stakeholders towards the academic and vocational learning pathways is restricted secondary schools. In Kafue district, Zambia. University of Zambia, Lusaka to assess factors that influenced the implementation of the revised curriculum. The findings showed that majority of teachers regarded the physical environment in school as being less conducive for effective teaching and learning especially with regard to practical and other newly introduced subjects in the revised curriculum. The results showed the ministry of education was quick in implementing the revised curriculum 2013 when it has not yet improved the learning conditions for quality education to be attached.

The study also found that despite efforts by the education system to implement the curriculum which was skilled based learners' centered a holistic in nature there was still a challenge in terms of providing quality teaching and learning resources. The most common reason indicated by respondents was lack of financial resource. The issue of inadequate funding to secondary schools was to a larger extent a hindrance to effective implementation of the 2013 revised curriculum particularly with the newly introduced subjects. Majority of the schools indicated high nations which attributed to over environments and inadequate teaching staff. The over enrolment in secondary schools means that the teaching and learning facilities were inadequate to accommodate the increased number of learners.

Leading to over crowded classrooms unpreparedness and resistance was shown in the study by the way same educators responded about the revised curriculum that they needed more time curriculum that they revised curriculum before it was implemented. In terms of support from the district office most participants indicated that they had received tremendous support from the subject advisors and various educators at the workshops conferences seminars teacher group meeting both in school and at district were centre, while implied educators were being

supported by understanding the revised 2013 curriculum by debs teach and at school management.

In another study by Mulenga, (2016) assessed the implementation of computers studies curriculum in selected public primary schools in Ndola district of Zambia, findings indicated that teaching and learning materials in primary schools were not available for ICT. Majority of teachers were still uncomfortable to teach ICT because of not having adequate training. Banda, (2016) agreed with the findings of Mulenga that integration of I.C.T in primary schools still face challenges in terms of infrastructure and equipment.

2.5 Research Gap and Directions for Literature Review

From the evidence of literature review from the global perspective, in Africa and Zambia on the implementation of the secondary school curriculum and school curriculum in general it seems that different countries face various challenges during the implementation. Developed countries seem to have fewer challenges unlike African countries. Literature identified numerous aspects in which the school curriculum can be maintained. It is highlighted in most literature that teaching and learning resources, qualified teachers, adequate infrastructure, monitoring, and assessments play a significant role in curriculum implementation. However, it has also been established from the literature that schools encounter challenges in implementing the curriculum due to various reasons among others are inadequate resources, shortage of qualified teachers, and non-involvement of teachers in the process of curriculum revision. However, as much as literature has indicated the relevance of adequate teaching and learning resources in curriculum implementation, it appears little or no studies have been done in Chipata district to evaluate the adequacy of the teaching and learning resources for the implementation of the 2013 revised secondary school curriculum. This study was different from the studies reviewed in literature in terms of the research topic, context and research methodology. Instead of analysing what other authors have written on the implementation of the curriculum, the researcher focused on establishing the winning strategies for the implementation of the revised 2013 curriculum in Chipata district. This study has come at the right time when the Ministry of General education is trying to establish what is causing some schools record poor performance at Grade twelve level when other schools record good performance (MoGE, 2018).

Summary

Chapter two contains literature from different dimensions on curriculum. It covered thinking of scholars on curriculum implementation, literature from the global perspective, literature from Africa and literature from Zambia. The researcher viewed different literature in chapter two to understand curriculum implementation. Furthermore, the researcher identified the Gaps to show the relevance of the reviewed literature to this study. The next chapter contains methodology which was used in this study.

CHAPTER THREE

METHODOLOGY

Overview

In this chapter, the researcher discussed the methodology which was employed in this study. The chapter contains the following sub headings; the research paradigms, research design, study site, target population, sample size, sampling technique, data collection instruments, validity and reliability, data collection procedure, data analysis and ethical considerations.

3.1 Research Paradigms

A research paradigm is a worldview or perspective about a research held by community of researchers that is based on a set of shared assumptions, concepts, values and practices. It is simply an approach to thinking about and doing research. Mixed method research design is a design with philosophical assumptions as well as methods of enquiry. As a methodology, it involves philosophical assumptions that guide the direction and analysis and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination, provides a better understanding of the research problem than either approach alone (Creswell and Clark 2007). Burk and Christensen (2012) supports Creswell and Clark about a research paradigm being a perspective about research held by community of researchers. Hence this study employed a mixed method research. A combination of qualitative and quantitative approaches to this study using the mixed method design helped the researcher come up with the balanced understanding of the phenomena under study. Qualitative data provided a detailed understanding of a problem, thus qualitative understanding arises out of studying few individuals and exploring their perspectives in great depth whereas the quantitative understanding arises from examining a large number of people and assessing responses to a few variables (Creswell and Clark 2011).

3.2 Research Design

A research design refers to the outline, plan or strategy a researcher can use to seek an answer to a research question. Kombo and Tromp (2006:70) define a research design as “a “glue” that holds all the elements in a research project together”. However, Creswell and Clark (2011)

identified major designs that are commonly used in mixed research and one of the designs is the embedded mixed method designs which was used in this study. The embedded mixed method design according to Baran and Johns (2016) combine the analysis of both quantitative and qualitative data. Either qualitative or quantitative data can be primary and one can be secondary or supplement. In this study more or qualitative design was employed as primary data and quantitative design was used to supplement the data in the study. The quantitative design was embedded in the qualitative design in order to answer deferent research questions in the implementation of the revised 2013 curriculum since different research questions needed different research components to be answered, (Baran and Johns 2016).

However qualitative research was used to help the researcher investigate in detail attitudes of the district education standards officers, head teachers, and expert teachers in the vocational and academic pathways on the implementation of the revised 2013 secondary school curriculum in relation to instructional resources, teachers' qualifications and infrastructure while quantitative approach focused on data collection from teachers and pupils to add information to the qualitative data. This study involved multiple participants in an effort to draw a clear and detailed understanding of the events, objects and behaviours of people concerned with the implementation of revised 2013 Secondary School Curriculum in selected secondary schools of Chipata District.

Source. Adapted from Creswell (2011).

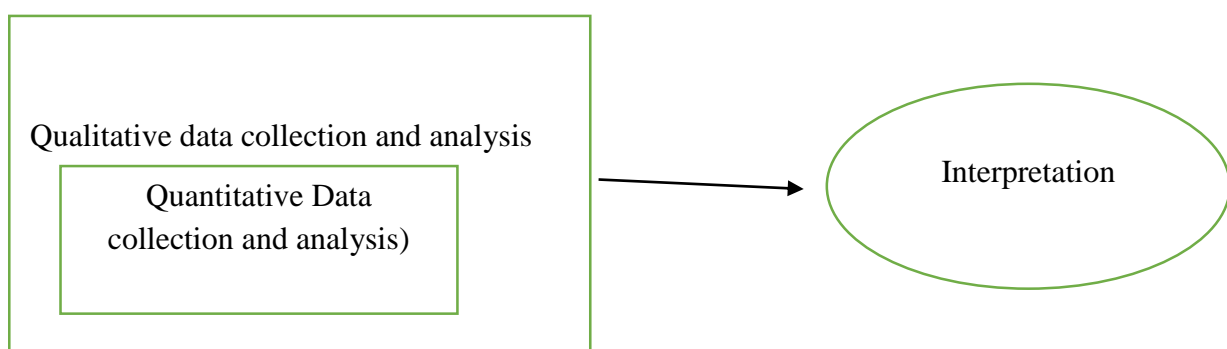


Figure 3.1: The embedded design illustration

3.3 Study Site

According to Lisa, (2008), a research setting can be seen as the physical, social, and cultural site in which the researcher conducts the study. This study was undertaken in Chipata district Eastern Province of Zambia. This site was chosen because it is one of the districts

implementing the revised secondary school 2013 curriculum and it is a provincial headquarters with 34 schools of different categories where data could easily be collected and provide the researcher with adequate information for the study. The site also helped the researcher to come up with a good sample which might have vital information to influence the study.

3.4 Target Population

Johnson and Christensen (2012) defined the target population as the larger population to whom the study results are to be generated. Ary, Jacob and Walker (2018) agreed with Johnson and Christensen (2012) that a target population is a total group to which the researcher would generalize the results of the study population and defined population as all members of any well-defined class of people, objects or events. In this study, the target population was all Secondary School teachers in Chipata district, all head teachers of the secondary schools in Chipata district as well as all standards officers at the District Education Board Secretary (DEBS) office and pupils from secondary schools inclusive.

3.5 Sample Size

A sample is defined as a “unit of observation / analysis (who or what is being studied)” such as people, groups, narrative segments and artifacts (Tashakkori and Teddie 1998:61). A sample is a portion of the population, finite in size and quantifiable, (Ary, Jacobs & walker 2018) and (Peers, 1996). Dattalo (2008) noted that research places demand on participants in terms of privacy, time and effort, and argued that researchers should avoid conducting studies that are underpowered or conversely avoid conducting studies with too large a sample size. Based on the scholar’s views of sampling indicated above, the researcher therefore sampled 5 secondary schools of Chipata district from the total number of 34 schools. From the 5 secondary schools, 2 schools were peri urban schools and 3 schools from township schools. The sample size for the respondents comprised of 57 participants, 2 education standards officers from Chipata district DEBS office, 5 Head teachers, 1 from each school, thirty (30) pupils, six (6) from each school and twenty (20) teachers four (4) from each school. The student used purposive sampling in to come up with the sample size. However, the sample will be decided using non statistical methods.

3.6 Sampling Techniques

Ary, Jacobs & Walker, (2018) postulated that there are two major types of sampling procedures available to researchers, probability and non-probability. Probability sampling involves sample selection in which the elements are drawn by chance procedures. Non probability sampling includes methods of selection in which elements are not chosen by chance procedures. Its success depends on the knowledge, expertise and judgment of the researcher. Peers, (1996) asserts that the idea of sampling is to use characteristics of a selected sample to infer properties of the population which the sample was drawn. In this study, the researcher employed both Probability and Non probability sampling techniques to select respondents.

3.6.1 District Education Standards Officers

The revised curriculum is a programme in the Ministry of Education which is being supervised by DEBS office. The standards officers in the district are in charge of monitoring the school programmes and provide guidance to the head teachers and teachers on curriculum issues. There are three district standards officers in Chipata district. The researcher purposively sampled two standard officers because they are direct supervisors and monitors of the school curriculum implementation and teacher training in the district. The two education standards officers sampled were ESO open and distance learning and ESO general inspection.

3.6.2 Schools

Chipata district has thirty-four secondary schools. It has three technical schools, old existing schools and newly established schools. Stratified and simple random sample was used to sample five schools from three categories. Schools were stratified in three categories; old existing schools, upgraded and technical schools. Using simple random sampling, two schools were sampled from old existing schools, two schools from upgraded schools and one school from technical schools. Stratified and simple random samplings was used to ensure that each from the sample size had an equal and independent chance of being sampled.

3.6.3 Teachers

Teachers are part of the implementation of the curriculum hence included in the sample for this study. They are on the grass root of implementation of the two tier education system. They are

also involved in school administration in various activities concerning the implementation of the two tier education system. Using the staff list from the schools, teachers were stratified in two stratum of male and female. Two boxes were used for male and female. Using simple random sampling, two teachers were drawn from each stratum to come up with four teachers from each school and 20 teachers for the sample.

3.6.4 Learners

Learners are the beneficiaries of the curriculum hence the researcher included them in the study sample. The researcher asked for the grade 12 class register and got six names of pupils, six pupils male and female. Grade twelve register was used because most of the learners who are in grade twelve have passed through the process of the 2013 revised curriculum and may have knowledge on the different subjects being taught. Stratified and simple random sampling was used. The names of learners were put in two strata of male and female. The researcher therefore employed simple random sampling to sample three learners from each stratum and six from each school to come up with 30 learners for the study sample. The names of the learners were put in two boxes tagged male and female, and the researcher used simple random sampling to come up with the desired sample. This was done in an effort to minimize biasness in the selection of the respondents.

3.6.5 Head Teachers

All Head teachers of the five schools from the study sample were included in sample because they are direct administrators and monitors of the revised 2013 curriculum in schools. Head teachers were purposively selected in the sample because they are direct leaders of the school and inspectors of the implementation of the curriculum.

Table 3.1 Summary of the sample.

Respondents	Proposed Sample
Education standards officers	Two (2)
Head teachers	Five (5)
Teachers	Twenty (20)
Learners	Thirty (30)
Total	57

3.7 Data Collection Instruments

According to Kombo and Tromp (2006: 88), “data collection instruments include: questionnaires, interview schedules, observation and focus group discussion”. In this study, data was collected using questionnaires, interview schedule, focus group and document analysis.

3.7.1 Questionnaires for Teachers

Teddie and Abas, (2009) contend that though questionnaires with closed ended items are used more frequently, questionnaires with open ended items also feature in many studies either alone or in conjunction with closed ended items. They contended that in mixed method research, questionnaires include both open ended and closed ended items. The questionnaire comprised of both open ended and closed ended items in order to avoid restricting information from participants. The researchers aim was to collect data from teachers of various subjects in the secondary schools on the effectiveness of the revised secondary school curriculum, the availability of instructional materials, infrastructure and administrative support. Suggestions on how to improve the implementation of the two tier education system were asked through the questionnaires.

3.7.2 Interview Schedule for Education Standards Officers

According to Green and Therogood, (2010), interviews are useful to explore experiences, views opinions or beliefs or specific matters. Accounts can be explored and compared to others to develop an understanding of the underlying structures of beliefs. There are different grades of structuring interviews. Structured, semi structured or open or in depth. Kombo and Tromp (2006:93) described semi structured interviews as “a list of questions or topics to be covered by the interview”. They contended that there are several types of interviews and gave an example of two types which are focused interviews and case studies. Focused interviews were used to collect data from education standards officers to intensively investigate the topic. The focused interview were aimed at giving the researcher a detailed understanding of the topic, implementation of the revised 2013 secondary school curriculum (Kombo and Tromp 2006). The focused interview schedule mainly concentrated on gathering data on how effective monitoring is done, how supportive the DEBS office has been in terms of provision of teaching and learning resources, and to investigate the adequacy of qualified teachers for both academic

and vocational pathways. It also focused on finding out the challenges faced by schools which record poor results in the two tier education system.

3.7.3 Interview Schedule for Head Teachers

Kombo and Tromp (2006) contented that Semi structured interviews are flexible because they consist both open and closed ended questions. The researcher used semi structured interviews to collect data from the Head teachers of the sampled schools. Semi structured interviews were used to allow head teachers answer questions which needed detailed explanations on the issue under study. By using both closed and open ended questions, the researcher was helped to have a detailed understanding of the availability of teaching and learning resources in schools, availability of teacher's for both academic and vocational pathways, the implementation of the revised curriculum, the way academic and vocation subjects are time tabled in schools and other administrative issues within the school that affect the implementation of the two tier system by probing the weaknesses and the strength of the curriculum.

3.7.4 Focus Group Discussion Guide for the Pupils

Kombo and Tromp (2006) postulated that focus group discussion is a special type of group in terms of its purpose, size, composition and procedures. They contended that in focus group, the discussion is carefully planned and designed to obtain information on the participant beliefs and perceptions on a defined interest area. The researcher used focus group discussion to collect data from pupils of the same education levels in both the vocational and career pathways in order to have a wider understanding of the study and how pupils from the different categories of pathways perceived the subjects. It also helped the researcher understand pupil's interest's opinions and beliefs about the vocational and academic pathways (Kombo and Tromp 2006). Focus group discussion also helped the researcher collect data from the pupils on how guidance and counselling teachers have assisted them in choosing the career pathways they are undertaking.

3.7.5 Document Analysis

A document is any material that provides information on a social phenomenon and which exist independently of the researcher's actions documents as a record of human activity provide a valuable source of data in case study research, along with interviews and observations, they

comprise one of the main forms of data sources. Document analysis was important in this study because it provided the researcher with information from written records and a backed up to the other instruments for validation purposes. Document analysis begins as documents are identified or selected on the basis of their usefulness or relevance as data for particular research, (Mills, Europos and Wiebi, 2010). The researcher therefore analysed the examination results for different schools to assess the performance in different subjects in order to establish the gaps in the revised secondary school curriculum implementation. The researcher also analysed schools minutes in schools from the sample size to back up the gathered data from the respondents in the schools.

3.8 Validity, Reliability and Trustworthiness

For research credibility, validity, reliability and trustworthiness are very important aspects of the research. The researchers explained the three different stated aspects in the sub-sections below.

3.8.1 Validity

Stephen and Diana, (2007) contended that validity and its measurement plays an important part in determining the appropriate methodology to employ. They define validity as the truthfulness, correctness or accuracy of the research data. Ary et al (2006) postulated that validity is the extent to which theory and evidence support the proposed interpretations of test scores for an intended purpose. They contended that in the process of validity, the researcher gathers various types of supporting evidence from many sources. Taylor (2013) describes validation as a close scrutiny of logical arguments and empirical evidence to determine whether they support the theoretical claims. The researcher therefore used interview schedules and recorded the interview with permission from the respondents to validate what was written on the interview schedules. The recording was used for crosschecking the data availed by respondents in case some information was missed out. Results from the focus group discussion questionnaire and document analysis were compared for clarity and validation of the study.

3.8.2 Reliability

Reliability is secondary to validity and if the measurement tool is not valid its reliability cannot be considered, (Miller and Whicker, 1998). Reinard (2006) asserted that “studying the

reliability of measure is a straightforward matter of repeating the measurement a reasonable number of times on a reasonable number of individuals”. “One of the easiest ways to estimate the reliability of empirical measurements is given to the same people after a period of time. One of them obtains the correlation between scores on the two administered of the same test” (Reinard, 2006:37). Stephen & Diana (2007), agrees with Reinard that reliability describes the extent to which a research instrument or method is repeatable. It is an assessment of the consistency of any method and asserted that it should be noted that a high level of reliability of data collection instrument does not necessary mean that it is accurate. Carmines and Zeller (1979) observed that there are four basic methods of estimating the reliability of empirical measurements; retest method, alternative – form method, the split –halves method and the internal consistency method. Hence the researcher employed the pretest method to reliably obtain the correct and consistent information from the respondents. The developed questionnaires were administered to a pilot group in the target population before administering it to the selected sample in order to establish if the instrument key questions were addressed. The pre-test method was also useful in identifying problems like unclear wording of the questionnaire. It helped the researcher improve the instrument before administering it to the selected sample.

3.8.3 Trustworthiness

Ridenour and Newman (2008:39). Postulated that “Trustworthiness relates to a broader notion of truth value”. Babbie and Rubin, (2009) contended that the key issue in evaluating the rigor of qualitative research is trustworthiness. Lincoln and Guba (1985) observed that Trustworthiness in qualitative research is similar to validity and reliability in quantitative research. They noted that there are four aspects of trustworthiness; credibility, transferability, dependability and conformability.

Green et al (1989) cited in Feig and Stokes, (2011) contended that the strongest support of trustworthiness in research findings come from the aspect of collecting information from different points of view with a variety of questions. They suggested that each method needs to address the same phenomenon but be implemented independently from other methods and triangulated. Credibility was therefore insured by triangulating the findings of the study to confirm the accuracy of the methods used. Member checking was also employed during the process of interviews to increase credibility, accuracy and transferability. The researcher

summarized the information and questioned the participant to determine accuracy. Member checking and triangulation was done to provide findings that were reliable.

3.9 Data Collection Procedure

According to Kombo and Tromp (2006), a researcher requires a research permit before embarking on the study there after administer research instruments to the respondents. The researcher obtained a letter from the University of Zambia Assistant Director for Post Graduate, Institute of Distance Education to conduct the study. The researcher took the letter obtained from the university to DEBs office Chipata district to request for permission to conduct the study in schools. Furthermore, the researcher took an introductory letter from DEBS office to conduct the study in the district. Before administering data collection instruments, the researcher asked for permission from administrators in the sampled schools and as well sought consent from the respondents before administering questionnaires. The researcher made appointments with administrators on the convenient time to conduct interviews and have focus group discussions with the pupils and conducted interviews at the advised time.

The researcher however used the letter obtained from the University of Zambia assistant director for post graduate, institute of distance education to ask for permission from DEBS Office to interview the ESO's. Appointments were made with the ESO's for an appropriate time to conduct the interviews. The researcher introduced herself and explained to the respondents that the study was for academic purposes. The main focus of the study was to establish the winning strategies of the implementation of the revised 2013 secondary school curriculum from various respondents from the sample size.

3.10 Data Analysis

The researcher employed both qualitative and quantitative data analysis for this study. Both approaches were employed because the study used a mixed method research design

3.10.1 Qualitative Data Analysis

Miles and Huberman (2014) suggested analytic moves to qualitative data analysis. They postulated that codes or themes should be assigned to a set of field notes, interviews scripts or documents. Baun and Clark (2013) emphasized the need to clearly define the themes to state

what is unique and specific about each and Guest et al (2012: 50) defined a theme as a “unit of meaning that is observed (noticed) in the data by a reader of the text” while coding was described as a process by which a qualitative analyst links specific codes to specific data segments. They contended that moderate to large data sets, segmentation is a vital applied thematic analysis mapping tool that must be used skilfully and thoughtfully.

Gupta et al (2018) suggested some steps to qualitative data analysis as familiarization of data, generating codes, identifying and organizing relevant themes, reviewing themes, defining, refining and naming themes and producing a final report. Hence this study used themes to analyses qualitative data. Data gathered from the interviews, focus group and documents was coded in a meaningful way and themes were developed from the coded data. Codes were analyzed and combined according to similarities to form the central themes. The researcher then reviewed themes to make sure they were refined and themes were defined to develop understanding of what data aspect each theme specified, there after a final report was produced.

3.10.2 Quantitative Data Analysis

“The analysis of quantitative data uses both the descriptive and inferential statistics”, (Punch 2009: 281). Dewberry (2004) contended that descriptive statistics is concerned with describing numbers and the relationship between them and inferential statistics is concerned analyzing numbers and drawing conclusions from them. It involves collecting a relatively small set of numbers and using them to make guesses about a larger set of numbers that the researchers is interested in, (Dewberry 2014) Hence the researcher used descriptive statistics to analyze data collected through questionnaires. Since the study was limited to Chipata Urban and Peri urban schools on the implementation of the academic and vocational pathways in schools, generalization was limited to Chipata urban and peri urban schools. Dewberry (2014) postulated that categorical data are usually presented in a table showing the frequency and percentage of people in various categories and can be displayed graphically, in pie charts or bar charts. The researcher hence employed pie charts and bar charts to graphically display the frequencies and percentages of respondents. The questionnaires were studied by the researcher and organized in different categories, research objectives.

3.11 Ethical Considerations

Malanie, et al (2002) contend that ethics in this context has largely been associated with following ethical guidelines or gaining approval from professional or academic bodies before commencing data collection and Daniel (2010) agrees with Malanie, et al (2002) that researchers regardless of the type of research they are conducting, should always be concerned with protecting their subjects and avoiding legal problems. In this regard a letter of permission from the university of Zambia distance education was taken to DEBS office to seek permission to conduct the research in selected secondary schools of Chipata district. In schools, the aim of the investigation was communicated to head teachers and the participants.

3.11.1 Confidentiality

Issues of enormity and confidentiality are key considerations in ethical research practice and in common with informed consent, are concepts that underpin professional research guidelines for social scientist. The management of confidentiality and anonymity is closely linked with the management of consent in that participants need to be informed about how confidentiality and anonymity will be managed (Wiles, 2013). As participants and informants have the right to confidentiality, they were ensured that the source of information was not be disclosed and was entirely for academic purposes. Information was stored under strict measures.

3.11.2 Honesty

Harmesley and Trainou, (2012) Qualitative inquiry raises distinctive ethical issues because it generally involves emergent and flexible research designs, and usually entails collecting relatively unstructured data in a naturalistic setting. Participants were encouraged to be honest in responding to the research questions and a good rapport was maintained between the participant and the researcher.

Summary

The researcher discussed the mixed research design to be employed in this study. Chapter three contained research methodology that includes; the research paradigms, research design, study site, target population, sample size, sampling technique, data collection instruments, validity and reliability, data collection procedure, data analysis and ethical considerations were presented. The procedure that was taken to collect data was discussed and the methods that were used.

CHAPTER FOUR

PRESENTATION OF FINDINGS

Overview

This chapter contains the presentation of findings. The results are presented based on data collected through questionnaires, semi structured interviews, focus group discussion and document analysis. Data is presented using themes, tables and charts. Themes emerged from the questionnaires and interview schedules which sought to address the following research questions;

1. To what extent were trained teachers available for the implementation of the vocational career pathways in Chipata district schools?
2. How was the provision and availability of teaching and learning resources for the implementation of the 2013 revised secondary school curriculum in Chipata district?
3. To what extent was adequate and suitable infrastructure relevant for the implementation of the revised 2013 secondary school curriculum in Chipata district?
4. What winning strategies would be established for the implementation of the revised 2013 secondary school curriculum in Chipata district?

4.1 Demographics of the Respondents

Table 4.1 represents question 1 from the questionnaire for secondary school teachers and sought information on the name of schools where the teachers were working which fall in three categories that is old schools, upgraded schools and technical schools. A total of 20 teachers from the three categories of schools responded to the questionnaire. 8 teachers were from the 2 old schools representing 40 %, 8 teachers were from upgraded schools representing 40 % of the sample and 4 teachers were from one technical school sampled representing 20% of the participants. The school type was necessary in this study in order to establish different experiences in curriculum implementation.

Table 4.1: Percentage distribution of school categories which participated in the study

	Frequency	Percent	Valid Percent	Cumulative Percent
Old Schools	11	55.0	55.0	55.0
Upgraded Schools	8	40.0	40.0	95.0
Technical Schools	1	5.0	5.0	100.0
Total	20	100.0	100.0	

Question 4 from the questionnaire for teachers sought to find out the qualification for teachers who participated in this study Table 4.2 indicate that 35% of the teachers are diploma holders, 50% are degree holders and 15 % hold masters degrees. This meant that the majority of the respondents have the degree qualifications in schools. This implies that teachers had the knowledge they need to deliver the subjects offered.

Table 4.2: Percentage distribution of professional qualification for teachers who took part in this study

	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	7	35.0	35.0	35.0
First degree	10	50.0	50.0	85.0
Master's Degree	3	15.0	15.0	100.0
Total	20	100.0	100.0	

Question 5 and 6 from the questionnaire for teachers sought to find out the years of teaching experience and the subjects they were teaching. Questions on the work experience and teaching subjects were important to this study in order for the researcher to understand the type of respondents. Figure 4.1 and 4.4 present the work experience and the subjects teachers offer in secondary schools drawn from question 5 and 6 of the questionnaire for secondary school teachers. 8 from the 20 respondents fall in the category of 6-10 years representing 40%. 35% fall in the range of 11 to 15 years, 20% fall in the range of 16 years and above and 5 % fall under the teachers who have worked below 5 years. The biggest number of respondents fall in the range of 6 to 10 and 11 – 15 years meaning that most teachers had the experience to teach

in secondary schools, meaning they understood the content better than teachers with less experience.

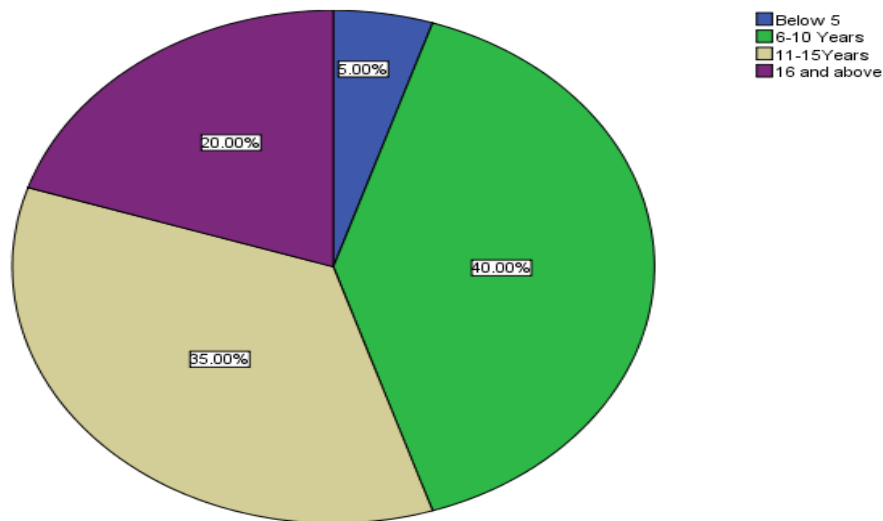


Figure 4.1: Percentage distribution of number of years in service for teachers who participated in this study

An understanding of the types of subject in relation to the respondents was important to this study. Figure 4.2 present findings for question 6 of the teacher's questionnaire where the researcher sought to find out which subjects respondents were teaching. 40% of the teachers were teaching social sciences, 25% were teaching natural sciences, 20% taught business studies and 15 % taught other vocational subjects. The results show that the social sciences had many teachers in schools as compared to vocational pathways which could affect curriculum implementation especially in vocational pathways.

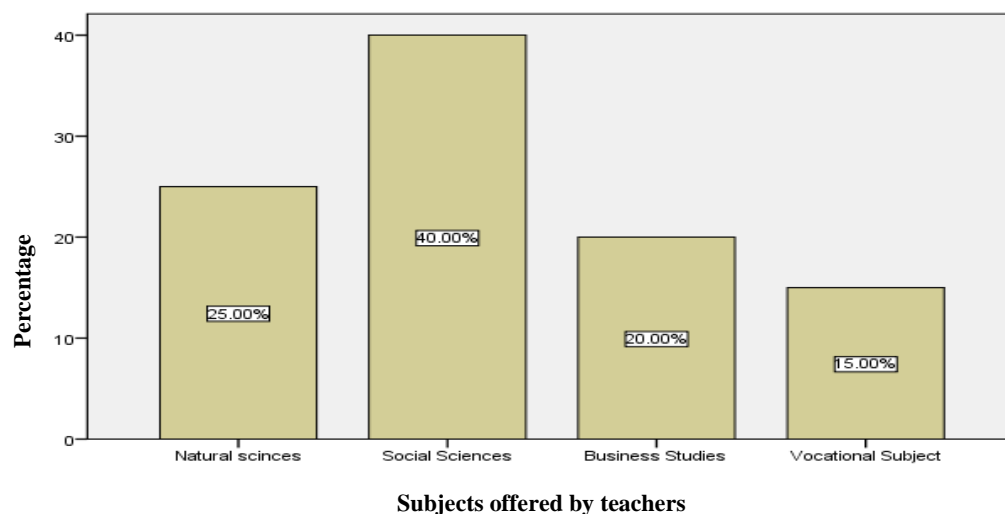


Figure 4.2: Percentage distribution of the subjects offered by teachers who participated in the study.

Apart from teachers, respondents included (2) education standards officers who have the expertise and monitor curriculum implementation at district level, (5) head teachers who directly monitor the implementation of the curriculum and (30) pupils who are the beneficiaries of the revised curriculum from (5) schools.

4.2 Research Questions

The methodology used in this study is mixed method which used both qualitative and quantitative approaches. Questionnaires were given to teachers while interviews were conducted with the education standards officers and head teachers. Pupils participated in focus group discussions and document analysis was done. Qualitative data was analysed in line with the research objectives using themes and quantitative data was analysed using tables and bar charts. SPSS was used to analyse teachers' responses from the questionnaires.

The findings from the head teachers interviewed and teachers were presented concurrently. In descriptions, the actual words spoken by head teachers were used and some words by the education standards officers were used too as direct quotes. In some instances, words have been paraphrased. However, some ideas presented had similar information hence fall under more than one theme.

4.3 Research Question One

Research question number one sought information from secondary school teachers, head teachers and education standards officers on the extent to which trained teachers were available for the implementation of the vocational career pathways in Chipata district schools.

The research question was as follows;

To what extent were trained teachers available for the implementation of the vocational career pathways in Chipata district schools?

Research question one prompted for quantitative data through question 7, 8, 9 and 10 of the teachers' questionnaire and question one of the head teachers' interviews on the availability of trained teachers for vocational and academic pathways in schools. Yes and no questions were used to answer the questions for teachers.

4.3.1 Availability of Trained Teachers for Vocational Pathways in Schools

The majority of respondents (55%) indicated that schools had trained teachers for the implementation of the vocational pathways. 45% of the respondents indicated that schools did not have adequate trained teachers available for the implementation of the vocational pathways. The summary of the adequacy of trained teachers for implementation of the vocational pathways has been presented in figure 4.3. Similarly almost all the head teachers interviewed indicated that trained teachers were not enough for the implementation of the vocational pathways in schools except for two schools which mentioned that they had enough trained teachers for the implementation of the revised curriculum. The head teacher for school A said that;

*This school has no trained teachers in computer studies.
The one who was teaching was transferred to another school.*

Similarly school C head teacher said that;

*The school has no trained teachers for subjects like carpentry
and bricklaying so we do not offer the subjects in school.*

Another head teacher from school D said that;

*The school is still struggling to have adequate qualified
teachers but it is improving.*

However, the education standards officers interviewed confirmed that schools do not have adequate teachers for the implementation of the vocational and academic pathways. The education standards officers said that lack of teachers in schools were due to transfers and sometimes deaths. Education standards officer one said that;

*Some schools have and some schools do not have enough
trained teachers for vocational pathways. Academic teachers
are still outnumbering vocational pathway teachers and
there is a shortage of teachers due to transfers and deaths.*

Similarly education standards officer two said that;

Some schools have teachers in vocational pathways and some do not have. Academic pathways have shortfalls of teachers in natural sciences.

Responding to the same question on the availability of trained teachers, pupils from 3 schools indicated that they did not have enough teachers especially for natural sciences. Pupils from two schools indicated that teachers were adequate for both vocational and academic pathways.

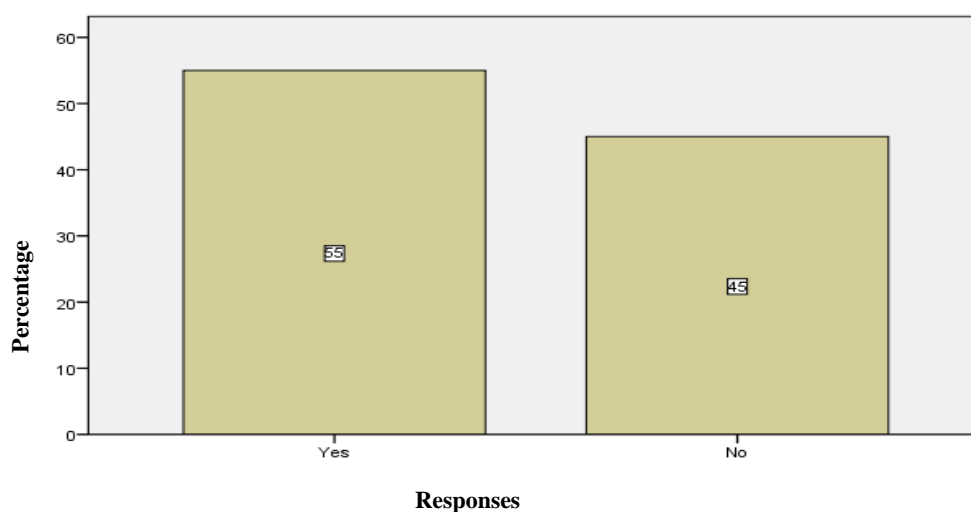


Figure 4.3: percentage distribution of teachers' responses on the adequacy of vocational pathways teachers.

4.3.2 Teacher Training and Professional Development

In the same vein respondents were asked if there were teachers undergoing training specifically for vocational pathways on question number ten on the questionnaire. 85% of the teachers indicated that some teachers were undergoing training and 15 percent indicated that teachers were not undergoing training as indicated in figure 4.4. The researcher was trying to have an understanding if there were any remedies done to the shortage of qualified teachers if any in the implementation of the revised 2013 curriculum hence question 10 of the questionnaire for teachers. One of the respondents said that;

As at now we depend on government to send us trained teachers. We talk to teachers to do their best. We also send teachers to do their capacity building workshops and CPDs

because it is through those meetings they will meet other teachers who are trained on how to handle a specific subject. The school has a policy on two CPDs per term but it is not always done due to lack of time. Through CPDs the school is helped and every time i receive reports after CPDs either verbal or written which gives an impression that teachers have benefited.

However, all the respondent indicated that CPDs were conducted in schools to enhance capacity building and help other teachers who were implementing the revised curriculum understand the new concepts in the revised curriculum. One head teacher from school B said that;

CPDs are conducted locally and are very helpfully in curriculum implementation. Our school embarked on cluster CPDSs with other schools and all the departments had an outing at the end of 2017. Local term CPDs are also conducted. Cluster CPDS are conducted at provincial level in an effort to see what is helping their friends achieve the results that they are achieving . The benefits are their because after the CPDs the school has embarked on assessments fortnightly and weekly test and teach work has been notice which was not there before. Where are may not understand the concept in team work he/she may be helped by the colleagues in the department as opposed to leaving the subject to an individual who might face challenges to teach certain concepts not well understood by the teacher.

In addition, one of the education standards officers said the district has a training plan for teachers who wish to upgrade and it is up to the individual teachers to go for training and said that;

The training plan is there for all the subjects for 3 years but it's up to the individual teachers to go for training.

The researcher understood that the district did not have enough teachers for curriculum implementation but the comment from the Education standards officer indicated that the district did not identify areas of need in teacher training of the revised curriculum but it was left in the hands of the teachers to decide.

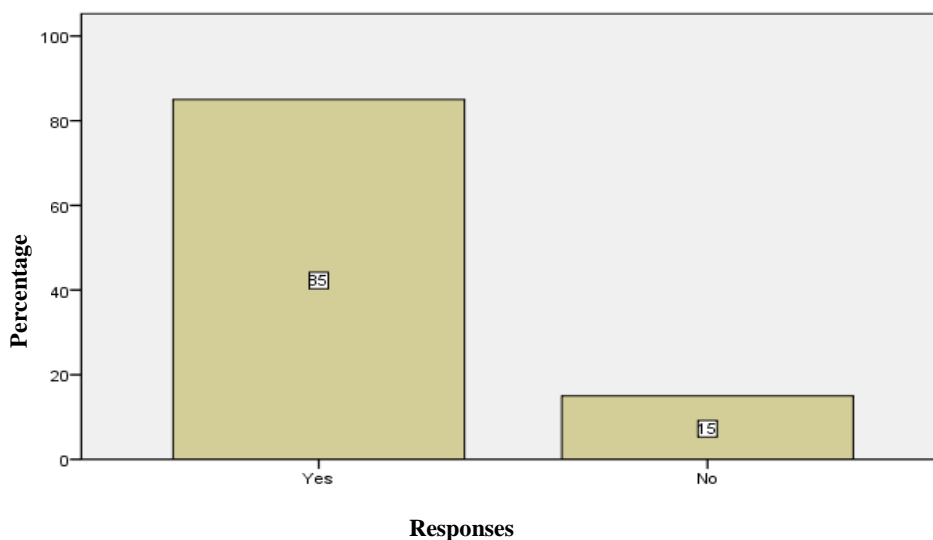


Figure 4.4: Percentage distribution of teachers' view on an investigation of teachers undergoing training for vocational pathways.

4.4 Summary of the Results on the Extent to which Trained Teachers were Adequate for Curriculum Implementation

This section purported to present findings on research question on which was; *to what extent were trained teachers available for the implementation of the vocational career pathways in Chipata district schools?* Overall respondents indicated that to some extent, teachers were not available for the implementation of the revised 2013 curriculum. The results show that the vocational subjects did not face much challenges in the shortage of qualified teachers unlike the academic subjects and the natural sciences departments in particular. Respondents indicated that vocational subjects did not have big gaps for trained teachers which was the case with academic subjects in natural sciences. Respondents also indicated that continuous professional development is also assisting in enhancing professional growth and teachers are learning from friends on the new concepts in teaching. The next section will contain the presentation of results to answer research question two.

4.5 Research Question Two

The researcher found it necessary to establish the availability of teaching and learning resources in order to understand the investigation under study hence results to answer research question two which sought to establish how was the provision and availability of teaching and learning resources for the implementation of the 2013 revised secondary school curriculum in Chipata

district. The researcher framed the question on the fact that curriculum implementation requires teaching and learning resources to be successful hence therefore important to assess the provision and availability of teaching and learning resources in Chipata district.

Research question two was;

How was the provision and availability of teaching and learning resources for the implementation of the 2013 revised secondary school curriculum in Chipata district?

4.5.1 The Provision and Availability of Teaching and Learning resources in Schools

The study sought to find out the provision and availability of teaching and learning resources through research question two item number 11 and 12 of the teachers questionnaire. 70 % of the respondent indicated that school administration provides the teaching and learning and 20 % indicated that DEBS provides. 5% of teachers indicated that parents are involved in the provision of teaching and learning resources and 5 % of the teachers indicated that the school administration, the DEBS office and parents provide the teaching and learning resources collectively. 60% of the teachers further indicated that schools do not have adequate teaching and learning resources while 40% of the teachers indicated that schools have adequate teaching and learning resources. Figure 4.5 and 4.6 present findings for question 11 and 12 of the questionnaire. The researcher understands that implementation of the curriculum requires adequate teaching and learning resources and also funds to procure the resources hence the question on provision and availability of teaching and learning resources.

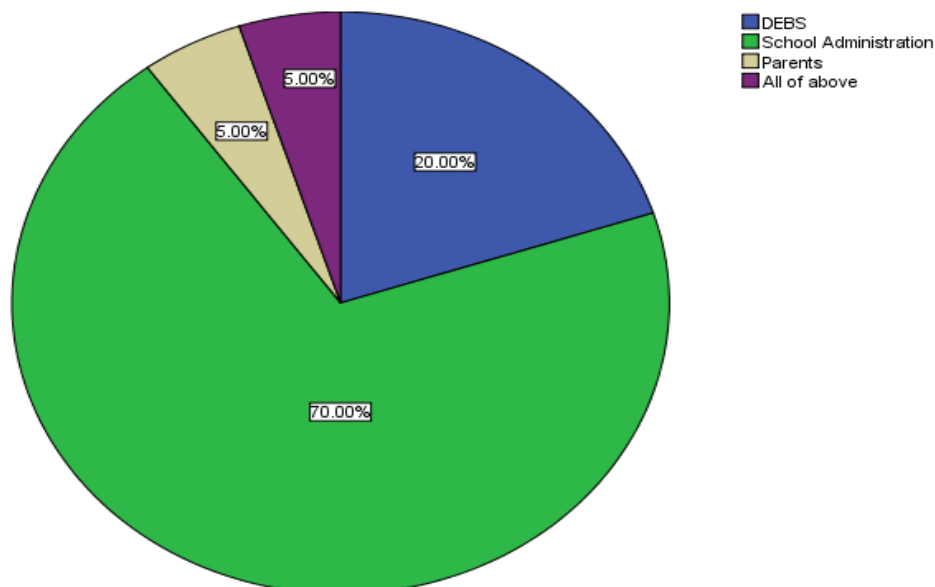


Figure 4.5: Percentage distribution of teachers' responses of who provide teaching and learning resources in schools. Generally 70 % of teachers indicated that the school administration provide teaching and learning resources.

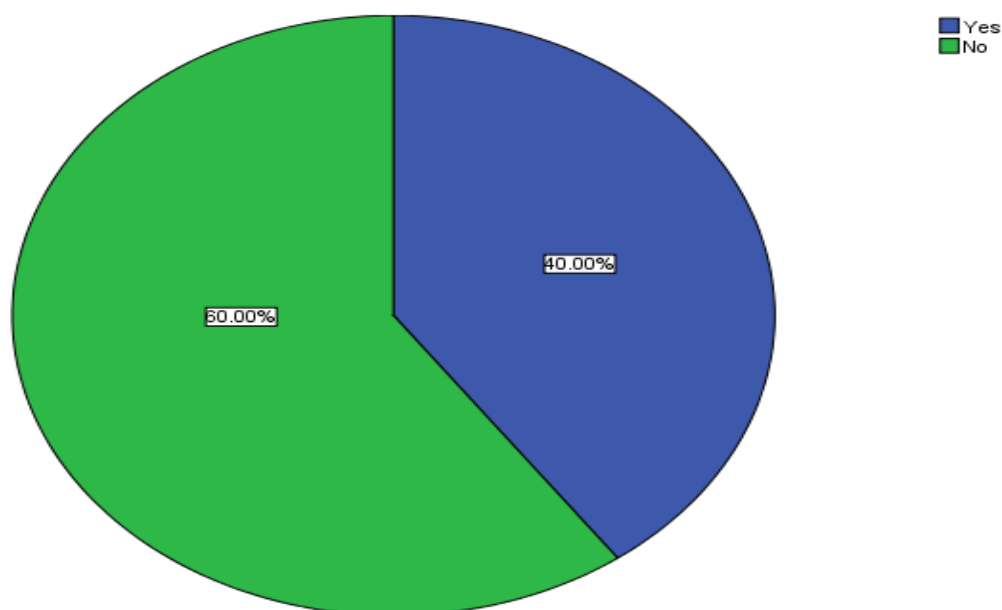


Figure 4.6: Percent distribution of availability of teaching and learning resources. 60% of the teachers said that the teaching and learning resources were not adequate in schools while 40 % indicated that teaching and learning resources were adequate and available in schools.

Generally the head teachers interviewed indicated that the teaching and learning resources are mostly provided by the school administration and are not adequate. The DEBS office come in

in terms of providing text books and equipment for vocational subjects. The head teacher from school A said that;

The Ministry of general education is trying to improve of late but it has not reached that level. In cases of computers for example there has not been much support from the ministry but in design and technology , there is good help from the government but still we need some more help. As a school every term , the HODs submit the budget we buy Teaching and Learning resources according to the school finances available. To some extent the government has provided books but some quality is not good like MK Books though not all topics are bad. As administration we do our part in the provision of teaching and learning resources. but we encourage teachers to be innovative and resourceful for example through the internet and magazine sometimes teachers are encouraged to buy text books because apart from pupils, teachers have dependents at home who can make use of the books and in case they are transferred to another school which do not have enough books they can use the books for effective teaching and their dependents can also have something to use.

Another head teacher from school B stated that;

As an administration, we provide teaching and learning resources for effective implementation of the curriculum and we have received help from the ministry especially in vocational subjects though it is not enough.

Furthermore some respondents concurred with what the head teachers said that teaching and learning resources are mostly provided by administrators in schools except for text books and some equipment for vocational subjects which the government has been providing. Education standards officer one stated that;

The government is supposed to provide teaching / learning resources but schools come in. There has been a lot of support in terms of books grade by grade from the government for the revised curriculum implementation. Some grades have not been provided with materials like books for example in some subjects as at 2017. Other materials like musical instruments cooking utensils have been

provided and computers were supplied to some schools though there is still a short fall of computers.

Education standards officer two said that;

Poor funding can constrain DEBS office to provide teaching and learning resources. Some teachers are encouraged to use local teaching and learning aids to facilitate teaching. When it comes to practical, schools buy their own chemicals. Text books are provided by the ministry of education but there is a shortfall for other grades. Initiatives of head teachers come in play in improvisation. Schools rarely ask for money to buy teaching and learning resources however lack of teaching and learning resources can affect curriculum implementation in terms of content delivery and affect the pupils examination results.

Majority of the interviewed pupils indicated that the teaching and learning resources are provided for by the school and school B and D pupils said that;

Sometimes we are asked to provide some teaching and learning resources from home especially when it comes to the home economics practical examinations.

4.5.2 Administrative Support and Teacher Involvement in the Provision of Teaching and Learning Resources

Item 13 of the questionnaire sought information on the support from the school administration in providing teaching and learning resources. Figure 4.7 indicates teachers' responses to item number 13. 85.0 % of the teachers said that they received support from the administration in teaching and learning resources to a larger extent and 15.0 % indicated that school administration provided the teaching and learning resources to some extent.

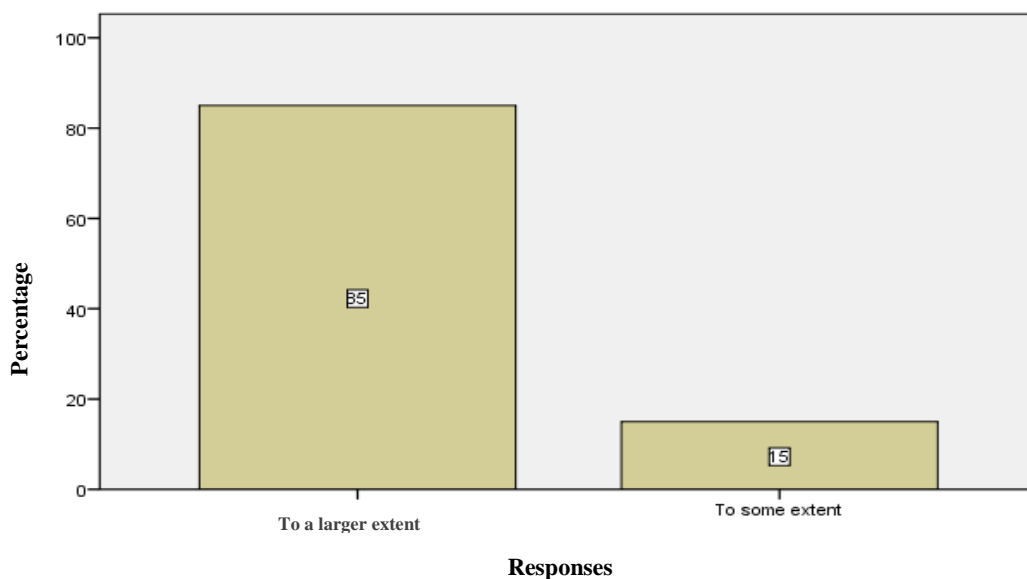


Figure 4.7: percentage distribution of teachers' responses on the school administrative support on teaching and learning resources

However head teachers were interviewed to determine the support they give to the teachers in the provision of teaching and learning resources. Majority of the head teachers said that the schools supported the implementation of the revised 2013 curriculum by providing teaching and learning Resources. Teaching and learning resources were provided by the school administration and one head teacher from school C said that;

We encourage our teachers to sometimes be resourceful by providing localized teaching and learning resources.

And school A head teacher said;

As administration we do our part in the provision of learning resources but we encourage teachers to be innovative and resourceful for example through the internet and magazine sometimes teachers are encouraged to buy text books because apart from pupils, teachers have dependents at home who can make use of the books and in case they are transferred to another school which do not have enough books they can use the books for effective teaching and their dependents can also have something to use.

However another head teacher from school C said that;

Teaching and learning resources are not adequate especially in science so teachers and the school uses initiatives of improvising buckets and bottles when it comes to experiments instead of sinks in the lab.

And some pupils from school D said that;

Teaching and Learning resources are not adequate. Most of the times our teachers buy their own text books. During exams, non-exam classes are affected in learning because desks are not adequate.

4.5.3 The Place of Teaching and Learning Resources in Curriculum Implementation

Figure 4.8 Represent teachers' views about the importance of teaching and learning resources. Majority of teachers thus 60% said teaching and learning resources were important because they help improve teaching and learning processes. 35 % said teaching and learning resources help pupils to understand the concept taught and 5% of the respondents indicated that teaching and learning resources help pupils identify their survival skill in practical subjects. However, Head teachers interviewed pointed out the importance of teaching and learning resources to curriculum implementation. The head teacher from school A said that;

Teaching and learning resources are relevant because for example desks, pupils need to sit when learning and the sitting must be comfortable and in a conducive learning environment which includes comfortable furniture . It is one of the requirement in study skills. Concentration will not be there if no there's no comfort. Teaching and learning materials is source of comfort so it's important in curriculum implementation. A teacher cannot keep materials in memory so books are important and variety of learning materials give an advantage to a good learning because others are explained in simple terms.

And school D head teacher was in agreement of the views of school A head teacher and said that;

Teaching and learning resources are key to curriculum implementation but there are not enough in the school without teaching and learning resources in line with the revised curriculum like computers it is difficult to implement the curriculum.

Education standards officer 1 said that;

Schools rarely ask for money to buy Teaching and learning resources however lack of Teaching and learning resources can affect curriculum implementation in terms of content delivery.

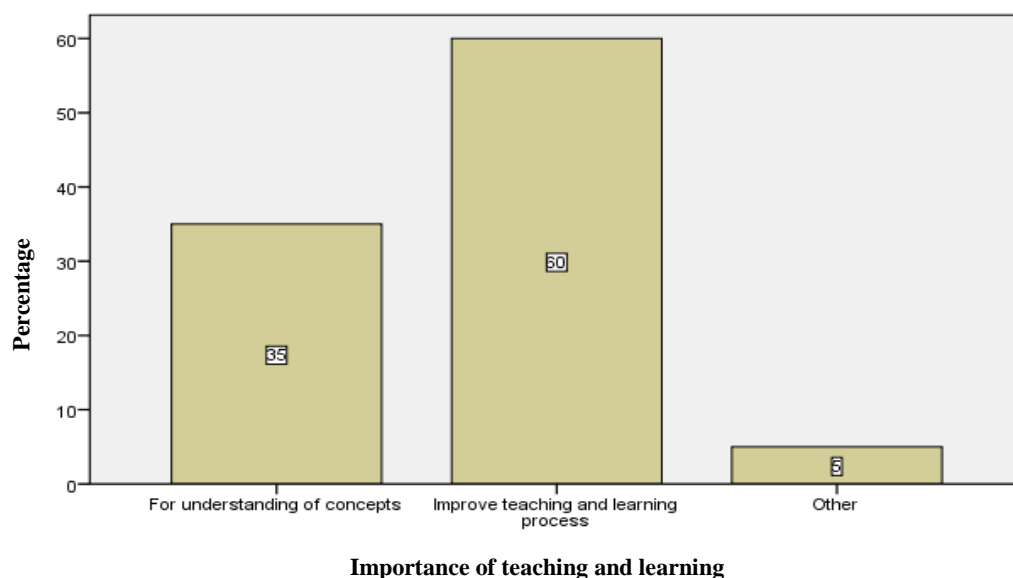


Figure 4.8: the percentage distribution of teacher's perception on the importance of teaching and learning resources.

4.6 Research Question Three

Research question three was;

To what extent was adequate and suitable infrastructure relevant for the implementation of the revised 2013 secondary school curriculum in Chipata district?

Research question number three attempted to find out the relevance of adequate and suitable infrastructure to 2013 revised secondary school curriculum implementation from respondents.

This question was addressed on item 9, 10 and 11 of the interview schedule guide for head teachers and education standards officers and question 17, 18, 19, 20, and 21 from the teacher's questionnaire and question 5 of the pupils' focus group discussion to supplement the findings.

4.6.1 Adequacy of Infrastructure

Curriculum implementation requires adequate infrastructure to be well implemented. The time table for the revised curriculum need pupils to learn for more hours especially in practical subjects and there in need for infrastructure. The following question was asked to head teachers;

Do you have adequate infrastructure to support the vocation and academic pathways?

In response to the question on the adequacy of infrastructure, the overall responses from head teachers and teachers indicated that they have challenges with infrastructure except the head teacher for school E which is a grant aided school run by the church who said that the school has adequate infrastructure for curriculum implementation. One of the head teachers from school A said that;

We do not have adequate and relevant infrastructure. The school is giving 4 skills in vocational training we don't have enough computer labs. The school only has one computer laboratory and we are always rationing in terms of time. One computer lab has 31 computers against all grade eight and grade nine pupils. The school plan is to have two computers labs for effective teaching. The school offer power electrical, carpentry and joinery , metal fabrication and bricklaying Infrastructure is not really helping as it is a technical school but it was not built as technical school and it was just crowned as a technical school. The school has one chemistry lab, one physics lab, one biology lab, one metal workshop, one wood workshop and one Technical drawing room. When it was turned in to a technique, the objective of a technical school is to produce people that will go into vocations but government did not increase the number of infrastructure. What was expected was after being crowned as technique school , government should have increased number of labs and workshops to two labs per subject.

However the head teacher from school A further said that some schools have been built but have a serious challenge of infrastructure such that they conduct their exams from other school to access lab facilities. He said that;

To build laboratories and workshops as a school it's not easy that is why some school have been built but do not have the workshops so when one takes vocational subjects that require practical's from workshops, pupils have to travel all the way from their school to another school which has the facilities to do some practical's .The school does not have enough rooms to help implement the revised curriculum. Infrastructure for this school is for a grade two school but enrolment is for a grade one school.

Another head teacher interviewed from school C said that;

Infrastructure is not enough. Due to inadequacy of infrastructure time has been compromised leading to less contact hours with the pupils and affects the performance of the pupils and curriculum implementation.

However, the head teacher from school D said that there was a challenge in infrastructure following the upgrading of the school from primary to secondary school. He said that;

Following the upgrade of the school from primary to secondary infrastructure is not adequate. The school is constructing a 1x3 classroom block and the laboratory is under construction to ease up infrastructure problems.

Only one head teacher from school E, which is a grant aided school run by the church indicated that they have adequate infrastructure for the implementation of the revised secondary school curriculum. He stated that;

We have no challenges of Infrastructure because it is adequate and relevant for both vocational and academic pathways.

In order to establish more information on infrastructure in schools and understand the extent to which schools did not have enough infrastructure, the researcher sought information from education standards officers through interviews and asked if schools in Chipata district have

adequate infrastructure for implementation of the revised 2013 secondary school curriculum.

Education standards officer one said that;

Schools have old structures which were used when population was small. Population is not matching the infrastructure in schools and making it difficult to implement the revised curriculum. There is need to improve. We need more desks as well as it is affecting learning and implementation of curriculum. Some of the old schools have the relevant infrastructure to support curriculum implementation but some new schools do not have.

Similarly, Education standards officer 2 said that;

Most of the schools do not have desks and in the absence of desks, conformability is not there and absenteeism becomes the order of the day which in the end affects the curriculum implementation. If a child has no desk, writing will be a problem. Rural schools have few things in terms of infrastructure and home economics subject has challenges in infrastructure. Which affects the curriculum implementation though teachers are advised to be resourceful, for example during practical they improvise braziers and other home economics equipment.

In order to cement the findings, the researcher asked the pupils if they had enough classrooms, desks and laboratories in the focus group discussions. Majority of pupils said that they did not have adequate infrastructure except pupils from school E who indicated that infrastructure was adequate. Pupils from school A said that;

The laboratories and classrooms are not adequate.

And school B pupils said that;

We don't have adequate laboratories and classes and because of not having enough laboratories, we do some of the laboratory practicals during mock and final exams only.

Table 4.9 indicate responses from teachers on the adequacy of classrooms. 55 % of the respondents indicated that classrooms were adequate and 45 % of the teachers said they did not have adequate classrooms. The information about classrooms was necessary in this study in

order to establish if schools were able to accommodate various subjects added to the revised curriculum. However teachers were asked in the open ended questions if they have some laboratories and workshops to support the implementation of the vocational and academic pathways in schools. The responses were that;

We don't have enough classrooms to support the implementation since the school was recently delinked from primary school. We are constructing a one by three classroom block under PTA.

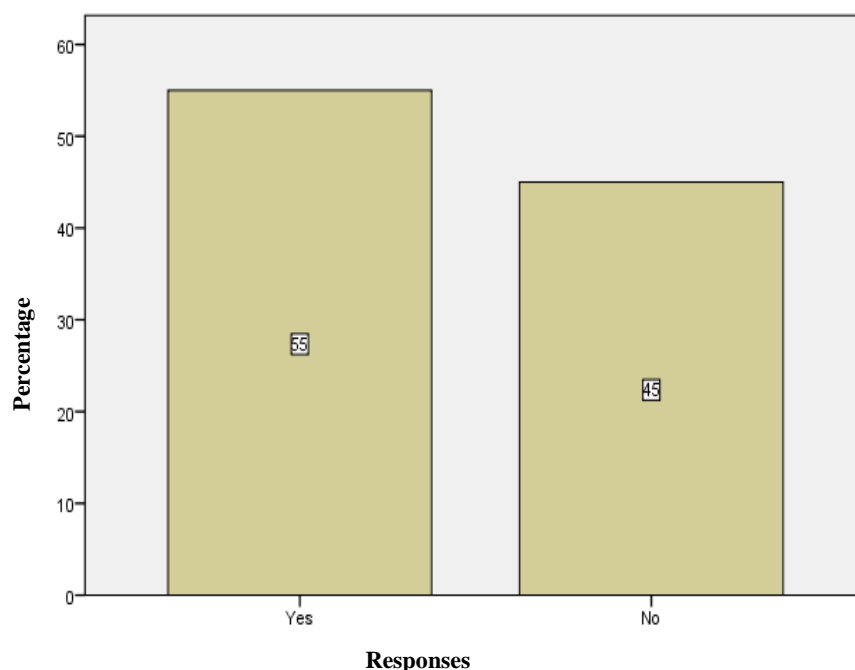


Figure 4.9: show percentage distribution on responses from teachers on the adequacy of classrooms

From the responses of Education standards officers, head teachers, teachers and pupils, it can be noted that the majority of respondents said infrastructure was not adequate in schools hence the challenge to implement the revised 2013 curriculum. Most of the head teachers indicated that the schools did not have adequate infrastructure to support the implementation of the revised 2013 curriculum. These responses indicated that if schools had adequate infrastructure, implementation of the revised curriculum was not going to be a challenge and would bring successes in curriculum implementation.

4.6.2 Relevance of Adequate and Suitable Infrastructure in Curriculum Implementation

From the responses provided it is clear that the revised curriculum needs adequate and suitable infrastructure to be successfully implemented. Schools indicated that they have various challenges due to inadequate infrastructure. In trying to investigate information on the relevance of adequate and suitable infrastructure in schools, research item number 18, the researcher designed research item number 18 from secondary school teachers' questionnaire. Figure 4.10 indicates that 65% of the teachers said adequate and suitable infrastructure is important in order to suit the needs of the pupils, 30% said adequate and suitable infrastructure helps in effective implementation of the curriculum and 5 % of the teachers attached the importance of infrastructure to conducive learning environment.

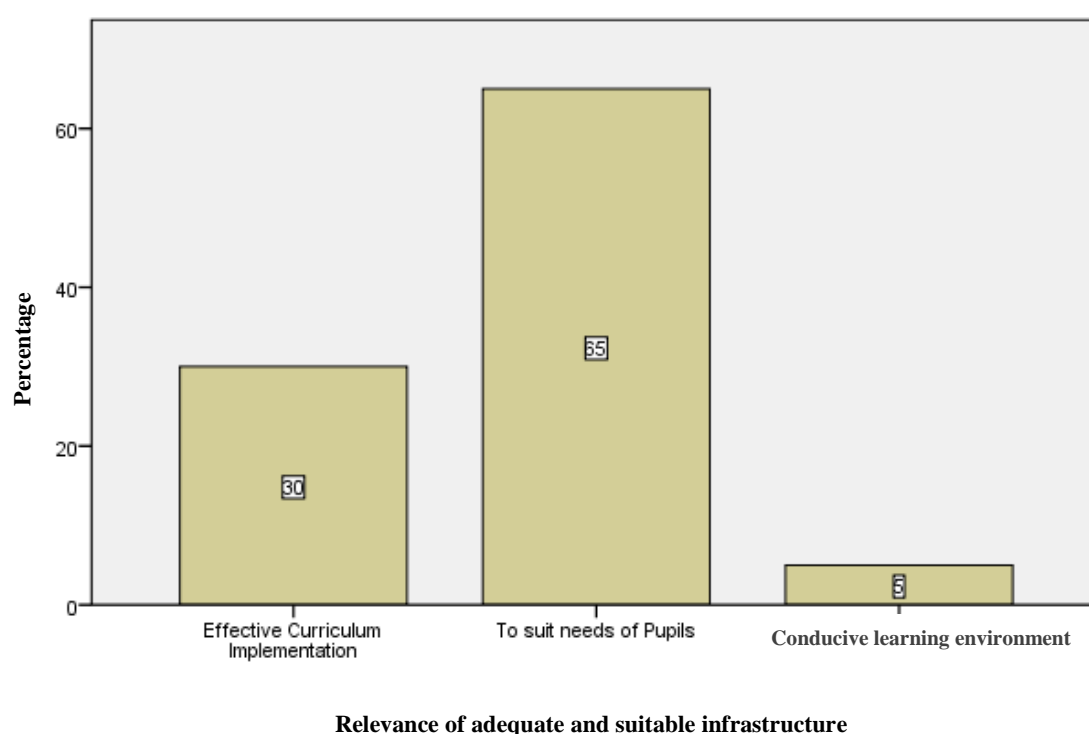


Figure 4.10: Percentage distribution of the relevance of adequate and suitable infrastructure

4.6.3 Effects of Inadequate Infrastructure to Curriculum Implementation

The researcher established that infrastructure was not adequate in the implementation of the revised curriculum hence sought the effects of inadequate infrastructure in schools. Item number 19, 20 and 21 from the secondary school teachers' questionnaire sought to find out the effect of inadequate infrastructure to curriculum implementation. Similar information was sought from head teachers through item number 11 of the interview schedule guide and item

number 7 and 8 of the education standards officers' interview schedules. Most teachers said that inadequate infrastructure affected curriculum implementation thereby affecting the examination results at grade nine and twelve to a larger extent. 65 % of the teachers indicated that performance was good, 10 percent indicated that performance was very good and 25% indicated that performance was excellent. Figure 4.11 show the general performance of pupils at grade 9 and grade 12 level.

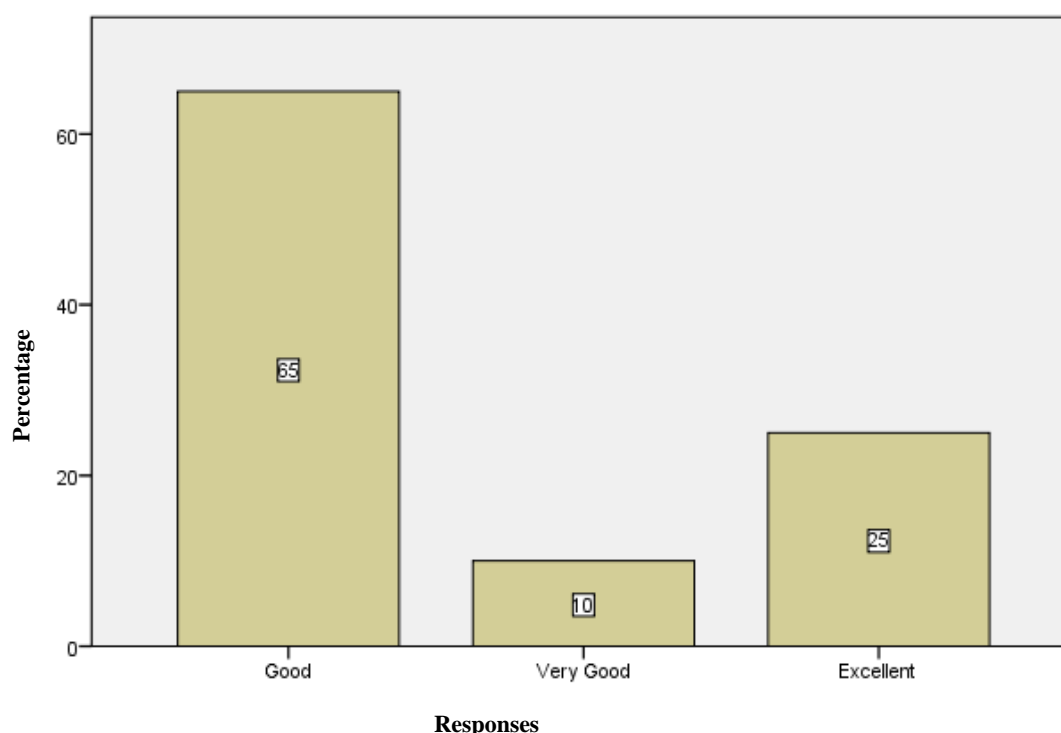


Figure 4.11: Percentage distribution of teacher's responses on the performance of pupils at grade nine and twelve level.

However, when head teachers were asked how infrastructure contributed to poor performance in exams, some head teachers interviewed said that when the schools have adequate infrastructure, the enrolments are controlled and makes it easy to teach. The head teacher from school A said that;

The grade twelve's this year 2018 will be the first to exit under the revised 2013 curriculum and they are the first to do design and technology the enrolment is 38-51 per class. Controlled enrolment makes it easy to teach and to have personalized attention which can yield very good results.

Another head teacher from school B said that;

The performance is not very pleasing and the school is striving. The school takes up to 55 pupils per class which is affordable to maintain. Due to lack of infrastructure and the demand of the revised curriculum, we had to phase out afternoon classes so that we teach according to the approved standard time table for the revised curriculum.

Due to lack of infrastructure, one head teacher said;

The performance is average due to challenges faced. The environment contributes to the average results. We do not have adequate infrastructure and sometimes we make use of the reading circles outside the classrooms.

Some head teachers from school E said the school performance was excellent. He said the classes had a maximum of 40 pupils which made it easy to manage the pupils.

The researcher established that curriculum implementation was affected by inadequacy of infrastructure as one of the education standards officers indicated that;

The recommended number is 35-40 pupils in class and the scenario in other schools is that 80-90 pupils because of demand for education is high against limited infrastructure and it also affects curriculum implementation .

Similarly education standards officer 2 said that;

The recommended number is 45 per class but some schools have more than 45 pupils due to lack of schools especially in rural areas.

4.7 Research Question Four

Research question number four sought information from secondary school teachers and head teachers and education standards officers on the winning strategies for the implementation of the revised 2013 secondary school curriculum. The question was; *what winning strategies would be established for the implementation of the revised 2013 secondary school curriculum in Chipata district?*

4.7.1 Challenges Encountered in the Implementation

Before establishing winning strategies for 2013 revised secondary school curriculum, it was important to look at various challenges teachers were facing in the implementation of the curriculum. It was also important to determine how head teachers and teachers overcame the various challenges encountered in the implementation of the revised curriculum. To establish challenges, research item number 23 in the secondary school teachers' questionnaire and item 13 of the head teachers interview schedule guide sought information from teachers about the challenges encountered in the implementation of the revised 2013 curriculum.

Head teachers who were interviewed noted that they faced challenges in the streamlining of the subjects in curriculum implementation. The other challenge which came out prominent from head teachers was the combination of the social studies at junior secondary school which has three subjects thus civics, history and geography. Head teachers noted that it is difficult for one teacher to teach all the three subjects combined in one subject as teachers only train in two subjects. School A head teacher said that;

Social studies is facing challenges in curriculum implementation. Since it's a combination of civics history and Geography. For 3 Subjects, at secondary school there is no specialization and there is no way a teacher can train in 3 subjects. Mostly teachers are trained in two subjects, one major and one minor but in the revised curriculum the 3 subjects were combined in one subject and it is giving us problems because if they are taught by three different teachers. If one teacher is shaky then it affects negatively in the other subjects. If one can do very well in the two subjects but because of the two subjects but because of the third subject a pupil may fail. In social studies, the school has been known to be the best performing.

Similarly school E head teacher indicated that;

In the early days, there were challenges in curriculum implementation but now it is stable. social studies has some challenges because of the combination of 3 subjects and mathematics results at G 9 level has not been excellent.

Respondents also indicated that they have challenges with infrastructure and that made it difficult to teach certain subjects. One of the head teachers from school B noted that;

We have no art room to in school so we improvise the classroom for art lessons. The school is also facing challenges in workshops like needle work and laboratories for science are not enough.

Another respondent from school D said the revised curriculum is facing challenges in inadequacy of teachers such that it is difficult to teach effectively. He noted that;

The school has inadequate teachers. Sometimes teachers have crushed timetables. One teacher is supposed to teach two grades at a time and pupils miss out especially in mathematics The school faces challenges in home economics equipment and most of the time it's borrowed It seems teachers do not follow the correct way of implementing the revised curriculum because there was no proper training for the teachers when the revised curriculum was introduced. The curriculum also lacks a proper stream line for the vocational pathways hence teachers do not know what to do.

Additionally, the education standards officers were asked if they experienced any challenges in the revised curriculum and education standards officer 1 noted that;

The major challenges are lack of teaching and learning materials and uniformity in implementation was not there due to various challenges faced by schools.

Additionally, education standards officer 2 noted that;

Expertise is not enough for curriculum implementation and it is biased mostly in natural sciences.

Figure 4.12 present the findings from the secondary teacher's questionnaire on the challenges encountered in curriculum implementation. 10 % of the respondents indicated that there was lack of specialized training in the revised 2013 curriculum, 50% of the respondents said that the curriculum was not properly streamlined especially for the vocational pathways, 25 % of the teachers indicated that the challenges they faced was lack of infrastructure to support the implementation of the revised curriculum, 10 % of the secondary school teachers noted that

curriculum implementation is facing challenges due to inadequate teaching and learning resources and 5% percent indicated different factors that affected the effective implementation of the curriculum.

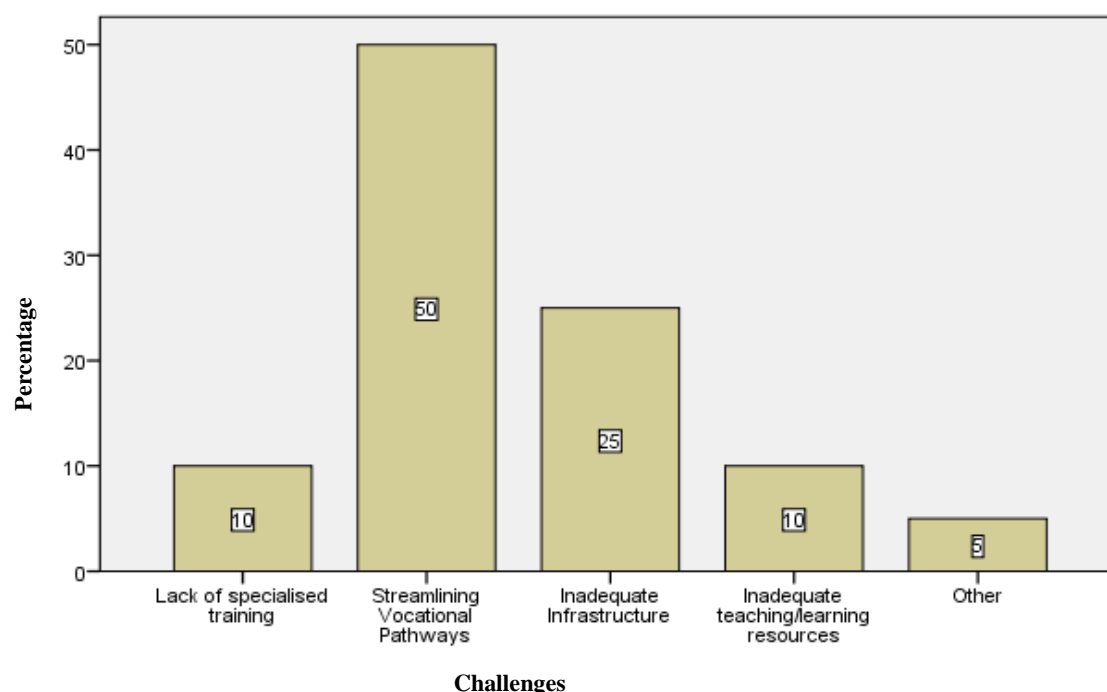


Figure 4.12: showing frequencies and percentage distributions on the challenges faced in curriculum implementation.

4.7.2 Winning Strategies

Expertise, teaching and learning resources and infrastructure is critical in the implementation of the curriculum. However most of the schools lacked the teaching and learning resources, adequate infrastructure and enough qualified teachers to implements the curriculum. In an effort to identify ways of overcoming challenges, research item number 24 from the secondary school teacher's questionnaire 8 to 13 from head teacher's interviews sought to investigate the winning strategies to the challenges faced in the revised 2013 secondary school curriculum

The responses in figure 4.13 indicated that most teachers increased the contact hours with the pupils to effectively implement the curriculum. 60% of the teachers indicated that the contact hours were increased because vocational subjects require more time with the pupils.30% of the teachers said they conduct CPDs to acquaint themselves with the new components in the teaching of the vocational and academic pathways and 10% of the teachers indicated that they

were improvising the teaching and learning materials to effectively implement the revised 2013 secondary school curriculum.

The head teacher for school B noted that despite the challenges they encounter, they were able to fundraise some funds to supplement the shortfalls in teaching and learning materials. He said that;

The school have challenges due to finances in the provision but the administration provides we need to procure more teaching and learning resources so we fundraise through a tuck shop, assembly hall hiring and the money goes to the procurement of teaching and learning resources. We also encourage the use of local learning resources is encouraged usually local materials for example in science teachers cut bottles and use them in the lab. Sometimes teachers get wires and use them to make globes in each geometry in mathematics. Despite the challenges with labs we use classrooms when it comes to practical exams. What we have just do is to procure enough practical material's then just put tables and buckets then practical's are conducted even within a classroom without taps. The cookery room has been combined to be used as a room for fashion and fabrics. For art the library is used. There is one projects which was done by PTA in infrastructure development though it is difficult to lobby from parents.

In a similar vein, another respondent, head teacher for school C stated that;

We have built some reading circles as a school so that pupils do not lose out on time. Some of the lessons are conducted outside the classroom on reading circles and PTA has embarked on the classroom building and the project is ongoing to reduce the challenges of infrastructure. We have also controlled the class enrolment so that teaching is effective.

Additionally, the head teacher for school A noted that their school did some exercise to work on the issue of the combination of the subject at junior secondary level. He stated that;

The HoD has to combine the teachers properly and a teacher will teach two subjects out of the three not giving

the third subject and the teacher teaches and they are combined looking at the strength of the teachers. The HoD has been observing them and we HoD the ministry will dismantle because it's not helping. In some areas teachers are forced to teach three subjects at a go but not practical in secondary school where a teacher is trained in two subjects.

Another head teacher for school D noted that;

When doing home economics practical classrooms are also used because there is no Home economics department.

One of the strategies which came out prominent from head teachers as a strategy for effective implementation of the revised curriculum was strict monitoring. Head teachers held the view that monitoring strengthens the implementation of the curriculum as some challenges can only be observed by being in touch with the teachers. The head teacher for school B said that;

The school has 3 categories of monitoring. as head teacher, I monitor 1 Lesson per week, the deputy head 2 lessons per week, HoDs 2 lessons per week and it has been helpful because it helps the teacher be on their toes in the coverage of the syllabi and because of the revised curriculum certain subjects have more periods than others. There are subjects with 12 periods per week like the vocational subjects and ,monitoring has really helped in the implementation than they used to have.

Similarly school C head teacher noted that;

Monitoring is done through and through I monitor twice per week, deputy head 3 per week and HoDs have a target. Monitoring has helped improve implementation of the revised curriculum because the subjects which need attention are easy to identify and through CPDs teachers share ideas on the weakness.

And school D head teachers stated that;

Monitoring is done regularly; Each HoD monitors the respective departments. HoDs came together to share

issues in teaching the new methods if they observe some challenges hence intensified monitoring is important in the revised curriculum.

Additionally school E head teacher said that;

there is intensive monitoring in this school and it is done on a daily basis, the deputy head teacher monitors period registers and it has helped to ascertain the presence of the teacher in class for effective implementation of the curriculum.

When asked to suggest what education standards officers thought could improve the implementation of the revised curriculum, education standards officer 1 said that;

Policy and planning DEBS office provides expertise in terms of construction in the district. Schools are advised to use building plans from the DEBS office in order to come up with suitable infrastructure for the schools.

Similarly, education standards officer 2 said that;

DEBS office has been lobbying partnership with the community. Parents come in terms of PTA funds for primary and user fees for secondary school. Grants received from the government are used for teaching and Learning resources mostly.

Other strategies include CPDs, monitoring, increasing contact hours with the pupils, partnership with community and using grants from the government to improve infrastructure and teaching and learning resources.

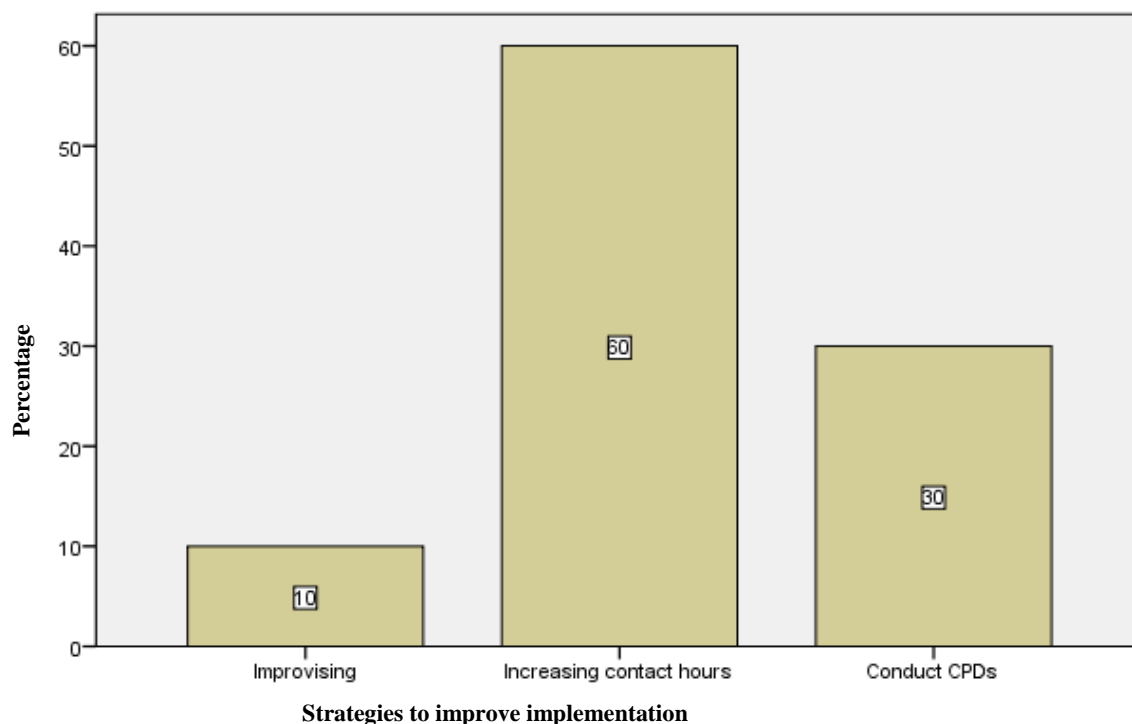


Figure 4.13: Percentage distribution of teacher's views on strategies to improve the implementation of the revised 2013 secondary school curriculum.

4.7.3 Relevance of the School Curriculum to Pupils

When teachers were asked to ascertain the benefits of the revised secondary school curriculum to pupils one of the teachers from school B said that;

The revised curriculum enables pupils to gain knowledge to solve real life problems and that learners appreciate the use of practical subjects in everyday aspects.

Another teacher from school E said that,

The revised curriculum makes sure all learners have some practical subjects to prepare them for their future.

Similarly another teachers said that;

The revised curriculum helps because at the end of the day, pupils who are weak in academic pathways will be helped to acquire skills.

Another teacher noted that;

It is beneficial because some learners have knowledge of the other topics from their home experiences and it becomes easier to come in and combine the concepts.

However teachers from school A had similar answers on the benefits of the revised 2013 curriculum with other teachers from various schools. One teacher indicated that;

It is more practical and learners are at least expected to something after school as opposed to depending on white colour jobs and that it prepares the pupils to be business oriented for example carpentry and Brick laying.

Education standards officer one said that;

With the revised curriculum, there is correct placement of pupils. Pupils are placed according to their abilities. Those who do well in mathematics arts are placed accordingly. We identify pupils where they will be.

In relation to what other respondents said about the benefits of the revised 2013 secondary school curriculum, the head teacher for school B stated that;

Design and technology I would give a plus to the government. Most also the introduction of TEVETA exams at Junior and senior level. The pupils are now going out with skills even if they fail at grade 9 for example bricklaying and they can use when they go out in society.

The head teacher for school C said that;

There has been an improvement in the results especially in vocational subjects.

4.7.4 Suggested Strategies for the Successful Implementation of the Revised Curriculum

Head teachers and teachers brought out suggestion on how the revised curriculum could be improved for its success. They brought out issues of allocating more hours to the time table, electrifying the schools which do not have electricity, infrastructure development and provision of teaching and learning resources by the ministry of education. Head teacher for school A suggested that;

Knowledge, materials, time is needed for revised curriculum. More hours was needed and the school had to increase contact hours. Even in practical's, time was needed but it is not much. Teaching and learning materials are needed and knowledge is needed which up to now we have not fully got because even the issue of computer studies schools did not even know which category it belonged to until now. Training is not there for example power electrical. Some schools had to send their teachers for training and few schools managed. The school is striving to provide financial support, materials support and creating time. Sometimes teachers meet the boys in the evening to do some practical's because time is not there. The revised curriculum has added a lot of things which should be done at the same time which is quite dangerous. The curriculum has the potential to achieve the sustainable development but the skills are not adequately given due to time and funds that are supposed to be used are not available.

Similarly the head teacher for school B stated that;

We are lobbying from the government to provide the relevant materials because most of the schools have no computers, infrastructure and even electricity. We are in a hurry, some provinces could have piloted the implementation of the curriculum.

The other respondent explained that;

Having continuous monitoring and supporting learners by providing a conducive learning environment can help us succeed in the implementation. Assessments should also be has also strengthened and pupils should be given guidance on choosing career pathways.

In addition head teacher for school D said that;

We have continued partnership between the school and community, outdoors programs for example career guidance and lesson monitoring which is helping us implementing the revised curriculum.

Another respondent said that;

Materials should be readily available, regular CPDs, discussion as a school consultation with the higher offices, government to provide resources especially computers studies because the schools have no enough computers.

Other suggestions that emerged from teachers included training teachers in areas and contents which they did not understand of the curriculum, funding of the upgraded school by the government to improve infrastructure, team teaching in subjects which teachers are facing challenges with the revised curriculum. Some teachers also indicated that primary schools should also take up the challenge of implementing the revised curriculum as two teachers noted that;

Training teachers at primary level and teaching using the revised curriculum should start from primary schools.

The responses from education standards officers, head teachers and teachers are a clear indication that the revised secondary school curriculum has to be supported through teacher training, provision of teaching and learning resources, infrastructure development, allocation of enough time to pupils and community partnership. The responses also indicated that for the implementation of the revised curriculum to be successful, there should be adequate funding from the government.

Summary

The researcher presented findings of this study in chapter four based on the research questions and research objectives. Based on the responses from teachers and head teachers, there was an indication that the revised secondary school curriculum is facing various challenges in implementation. Furthermore the research findings revealed that some schools have been upgraded without considering infrastructure development. Head teachers and teachers felt that they could successfully implement the revised curriculum if provided with the relevant and adequate teaching and learning resources, improve infrastructure, and train teachers in various grades and subjects. A discussion of the findings will be presented in the next chapter.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Overview

In the previous chapter, the researcher presented findings of the study which investigated the implementation of the revised 2013 secondary school curriculum in Chipata district. The researcher in this chapter will discuss the research findings through the use of related literature presented in chapter two, research objectives, conceptual framework and theoretical framework presented in chapter one. This study was guided by CIPP evaluation model.

5.1 Availability of Trained Teachers

It is important to note that any curriculum needs well trained teachers to effectively implement it. With reference to chapter one, for the implementation to be effective, there should be qualified teachers, educational materials and improved infrastructure, (Education for all 2015 National Review Report), (UNESCO, 2015). Studies done in different dimensions review that trained teachers play a vital role in curriculum implementation. Availability of trained teachers is therefore imperative if the curriculum has to be effectively implemented otherwise it cannot be implemented successfully and can affect the performance of pupils in exams as supported by Gwembire, et al (2013). The revised curriculum can only therefore be effectively implemented if trained teachers are available for both the vocational and academic pathways in Chipata district.

The researcher established that the revised curriculum to some extent has shortage of qualified teachers especially for vocational pathways and natural sciences. 45% of the respondents under objective one indicated that schools did not have enough qualified teachers which is a big gap to be filled if the curriculum has to be implemented effectively. In the same vein, some head teachers interviewed indicated that the revised curriculum still faces a shortfall of teachers especially in computer studies. From the five head teachers who were interviewed, only two head teachers from grant aided schools indicated that the teachers were available to teach both the academic and vocational pathways. One head teacher from school C noted that they did not have enough trained teachers to implement the revised curriculum hence some subjects which are in the vocational pathways like carpentry are not offered in their school. The findings are

worrisome because if the process of the implementation lacks qualified teachers, the revised 2013 secondary school curriculum will not be a success and will affect the academic performance for the pupils. Having qualified teachers to teach vocational and academic pathways is key to the success of the revised curriculum as argued by Kahera, Juliah, Ziganyu (2010) who observed that inadequate staffing was a barrier and greatest challenge to effective implementation of the curriculum. This point acknowledges the view that effective implementation of the curriculum relies on the availability of the trained teachers.

Based on the research findings, education standards officers noted that some schools have enough teachers and some schools did not have enough qualified teachers for the vocational career path ways, it can be argued that the revised curriculum does not have adequate teachers for the vocational and academic pathways implementation. Some pupils who participated in this study confirmed the inadequacy of the qualified teachers in schools. In view of inadequacy of qualified teachers, it was established that majority of teachers are now going for training for the vocational pathways. From the respondents, 85% of said that teachers are now going for studies for vocational subjects and 15% said teachers are not going for studies. The findings on teachers training for vocational pathways is a clear indication that the revised curriculum needs more qualified teachers in specific subjects to be effectively implemented as supported by Dannel, (2010) who investigated vocational education and training in secondary schools in Papua New Guinea and the study reviewed that most teachers were teaching general academic subjects while only a few unqualified teachers taught less costly VET subjects. Teachers reported that not all VET courses were taught at school level due to lack of qualified teachers.

As a way of making the curriculum a success, head teachers interviewed indicated that CPD are conducted in schools to enable the teachers learn new methods of teaching and fill in gaps in the revised curriculum. One of the head teachers indicated that as they wait for the government to send trained teachers, they do not sit idle but conduct CPDs in school because they believed through CPDs teachers will meet their friends who are trained in specific subjects and can share the knowledge. This view is supported by Education for all 2015 National Review Report, (UNESCO, 2015) which contend that Continuous professional development programmes for teachers as well as leadership development in the education system have become central in the general delivery of education. The relevance of CPDs to curriculum implementation cannot be overlooked as it also supported by (wiles, 2009) that staff development programs can help connect curriculum plans with classroom instruction. Assessing student's achievements gains for example may identify some learning skills that are

not being taught well, once the weakness of the curriculum is identified, the curriculum leader can schedule training sessions to improve faculty knowledge in those areas (wiles, 2009).

5.2 The Provision and Availability of Teaching and Learning Resources in Schools

For the curriculum to be effectively implemented, it requires teaching and learning materials available. Although other teaching and learning materials can be improvised, there are some teaching and learning resources that are supposed to be purchased and it requires funding from the government to procure some material to support curriculum implementation. Teaching and learning resources play a significant role in facilitating the implementation of the curriculum and the absence of the materials entails challenges in curriculum implementation. In order to address research question two, teachers were asked who provided teaching and learning resources for the implementation of the revised 2013 curriculum through a questionnaire. The results presented in figure 4.1 and 4.2 indicated that 70 % of the respondent said that school administration provides the teaching and learning resources, and 20 % indicated that DEBS provides the teaching and learning resources. 5% of teachers indicated that parents are involved in the provision of teaching and learning resources. The study also established that schools did not have adequate teaching and learning resources as 60% of the teachers indicated that schools do not have adequate teaching and learning resources while 40% of the teachers indicated that schools have adequate teaching and learning resources. These findings suggested that the government through the ministry of education is not providing much in teaching and learning resources to support the implementation of the revised curriculum which should not be the case. The findings raises a question on how readily prepared the curriculum development center with the ministry of education was in the implementation of the revised 2013 curriculum if the major task of providing resources is left in the hands of the school administration and the teachers at large. These findings are in contrast with the observation by Ngarogo, (1996) who argued that curriculum development is a process which determines how curriculum construction will proceed, its attempts to change the existing curriculum to respond to the changing needs of the children and society. It includes a repeating policy of planning based on national policies, production of instructional materials and implementation of the programs through the allocation of available resources .The findings however are in line with Kakupa, (2017) who contended that the revised curriculum needs adequate funding for it to be successfully implemented in secondary schools. Furthermore, the findings established that

inadequacy of teaching and learning resources led to some schools not taking up a number of vocational subjects and opted to teach subjects that teaching and learning resources are not difficult to improvise. This raises a concern because if this problem is not worked on, the revised curriculum will not be a success thereby making it difficult to achieve education for sustainable development goal number four.

Since teaching and learning resources are vital in curriculum implementation, administrative support and teachers involvement could not be overlooked. Teacher's responses on the question if the school administration was supportive in the provision of teaching and learning resources were presented in Table 4.7 of chapter four. A larger percentage of the teachers 85.0 % said that they received support from the administration in teaching and learning resources and only 15.0 % indicated that school administration provided the teaching and learning resources to some extent. The findings are a suggestion that schools are ready to implement the revised 2013 curriculum if they are availed with the available resources. The findings also established that despite the government through the Ministry of General Education not adequately providing teaching and learning resources, head teachers were making an effort to resource for funds to buy teaching and learning resources to effectively implement the revised curriculum. The findings however established that teachers were not passive in supporting the implementation of the revised curriculum as one head teacher noted that teachers were asked to improvise when there was a short fall of teaching and learning resources. These findings to an extent are supported by Wiles, (2009) who observed that simple curriculum maintenance at school level is not easy and can be a full time Job if not done correctly. Any number of recurring tasks will determine the readiness of the school to deliver the planned curriculums intended and without tip-top maintenance, the curriculum can be distorted and even inefficient. The school curriculum leader serves a bridge for both upward flow and downward flow of inquiry of information.

Additionally, teachers who participated in the study acknowledged the importance of teaching and learning resources in curriculum implementation. According to the findings 60% of the teachers said that teaching and learning resources were important because they help improve teaching and learning processes. 35 % said teaching and learning resources help pupils to understand the concept taught. In line with the findings on the importance of teaching and learning materials, the absence of the resources would imply that the teaching process will be difficult for both the teacher and the pupils and learners will not fully understand the concepts

being taught consequently leading to poor performance of the pupils and not achieving the desired outcome of the vocational and academic pathways of producing a pupil who is holistic for a changing world. School D and A head teachers also acknowledged the importance of teaching and learning resources to curriculum implementation. Head teachers observed that the revised curriculum needs teaching and learning resources to be well implemented without teaching and learning resources in line with the revised curriculum, it is difficult to implement the curriculum. This could be the reason Nambela, (2016) contended that despite efforts by the education system to implement the curriculum which was skilled based, learner centered and holistic in nature, there was still a challenge in terms of providing quality teaching and learning resources. The most common reason indicated by respondents was lack of financial resources which was also supported by Asibey, (2015) who contended that the major challenge confronting TVET in Ghana was the lack of government's commitment in funding TVET and the unfair modalities of disbursement of funds (based on the number of students). The issue of inadequate funding to secondary schools was to a larger extent a hindrance to effective implementation of the 2013 revised curriculum particularly with the newly introduced subjects.

5.3 Availability of Relevant Infrastructure

Infrastructure plays a very important role in the implementation of the revised 2013 secondary school curriculum hence the need to have adequate and suitable infrastructure if the revised curriculum has to be a success as observed by Suobere, (2008), who noted that inadequate infrastructure, teaching and learning resources and poor financing of the schools are barriers to effective implementation of the school curriculum. Therefore, it is important that infrastructure in schools be adequate and suitable for curriculum implementation. Effective implementation of the revised 2013 secondary school curriculum needs infrastructure that supports both the vocational and academic pathways like the woodwork shops, metal work, and laboratories. Schools are expected to develop infrastructure through the aid of the government if the revised curriculum has to be successful.

However, the findings of this study established that most of the schools did not have adequate and relevant infrastructure for the implementation of the revised secondary school curriculum. Respondent indicated that some schools were built a long time ago and cannot match with the current population thereby making infrastructure a problem. Another respondent indicated that due to inadequacy of infrastructure, teaching time is compromised therefore affecting the performance of the pupils. This finding support the study by Asibey, (2015) who conducted a

study in Ghana to investigate the implementation of technical and vocational education. The study sought to uncover the challenges that militate against the successful implementation of technical and vocational education and training (TVET) in Ghana at the school level and to describe the challenges from the perspective of the school leadership and uncovered lack of proper infrastructure and teaching and learning materials for TVET as a limitation to the implementation of (TVET) in Ghana. The scope of TVET in Ghana and significantly contribute to the poor performances students at their final examinations and eventually limiting the number of student who could potentially make academic progression in the higher institutions of learning. This view was also supported by Nambela, (2016) in an evaluation of the effectiveness of the revised curriculum on the provision of quality secondary education in selected schools in Kitwe District, the findings showed that majority of teachers regarded the physical environment in schools as being less conducive for effective teaching and learning especially with regard to practical and other newly introduced subjects in the revised curriculum.

However, the findings indicate that schools decided to select some subjects in the revised curriculum and leave other subjects due to not having the relevant and adequate infrastructure for implementation of other subjects. One of the respondents indicated that they opted to teach home economics because it is easy to improvise in terms of infrastructure and teaching and learning resources unlike other subjects. The study established that due to the inadequacy of infrastructure, some schools resorted to take academic pathways than vocational pathways and this view is supported advanced by Chanda, (2016) who conducted a study in Kafue district to assess perceptions of stakeholders towards the academic and vocational learning pathways in selected secondary schools. The findings indicated that stakeholder's perceptions towards academic and vocational pathways were good despite the fact that schools chose to take a certain pathway based on the availability of suitable infrastructure and similarly Mulenga, (2016) , and Banda (2016.in the same vein Kahera, Juliah, Ziganyu (2010) asserted that curriculum implementation in some secondary schools that were not established in Kenya had difficulties especially in practical lessons because of lack of laboratories and others had laboratory rooms that were incomplete because they were community development fund (CDF) projects awaiting completion which is the case with some the upgraded schools in Chipata district. The study established that some schools did not have infrastructure for skills training and had to travel to other schools for practical's during exams and to an extent borrow computers in case of computer studies and affected the implementation of the curriculum. This

was in agreement with Daniel, (2010) who reported that head teachers in Ghana admitted that the students who took VET did not fully acquire Basic VET skills in the most important VET areas. The schools did not have facilities to engage students in practical training. There was very little strategy in place that enabled students to reinforce, expand and apply academic knowledge and VET skills in a variety of settings to solve situated and real problems.

5.4 Strategies for the Effective Implementation

The challenges of the revised 2013 secondary school curriculum is something that deserves the attention of the government, the ministry of education at district level , the head teachers and the teachers who are the key implementers and researchers of the curriculum and the curriculum experts. Despite the government providing teaching and learning resources, recruiting teachers on a yearly basis and making efforts to improve infrastructure, the findings in this study indicated that schools are still facing numerous challenges in curriculum implementation in terms of teaching and learning resources, infrastructure and adequate qualified teachers to implement the two tire system. It is difficult for teachers to teach certain subjects without the knowledge hence schools opt to select subjects they can afford teaching from the vocational and academic pathways. It is also difficult for teachers to teach without limited teaching and learning resources and limited infrastructure. In line with the findings, Kakupa, (2017) questioned the implementation of the revised curriculum without proper funding for infrastructure, teaching and learning resources and expertise.

However in line with the research findings, it was clear that the implementation of the revised curriculum is facing challenges in Chipata district. It could be that the curriculum specialists were in a hurry to revise the curriculum without looking at the provision of teaching and learning resources, expertise and infrastructure development for the schools. the findings indicated that 10 % of the respondents pointed at lack of specialized training as a challenge to challenge to curriculum implementation while 50% of the respondents noted that the revised secondary school curriculum was not properly streamlined especially for the vocational pathways, 25 % of the teachers noted that they did not have adequate and relevant infrastructure to support the implementation, 10% of the respondents stated that the revised curriculum lacked teaching and learning resources and 5% indicated various challenges encountered in curriculum implementation. Having discussed the challenges encountered in curriculum implementation, the effects of the challenges to teaching and learning, and factors that could have led to poor

performance of pupils at grade 9 and 12 level in different subjects, the researcher will then discuss the strategies that may be employed to effectively implement the revised secondary school 2013 curriculum in Chipata district in the next section.

5.5 Established Strategies

The importance attached to the vocational and academic pathways to the development of the nation cannot be over emphasized. Teaching and learning materials, infrastructure and qualified teachers are cardinal to the effective implementation of the two tier education system. The revised curriculum would not yield the intended results if issues affecting its implementation are not addressed.

However the research findings clearly indicated that implementation of the revised curriculum was affected by the absence of the teaching and learning resources, infrastructure and lack of qualified teachers in Chipata district which led to poor performance. Based on the research findings, the researcher identified some strategies that were used in schools to help the implementation and improve the results in both academic and vocational pathways.

Most respondents indicated that CPD's were used to cover up the qualifications for teachers who had problems to teach certain concepts in the revised curriculum. Some respondents indicated that they had cluster CPD's to help the teachers learn from other schools the initiatives they were using to effectively implement the revised curriculum.

Additionally, head teachers said intensified monitoring helped them to implement the revised curriculum as they could identify the strengths and weaknesses from the teachers and were able to identify needs for various subjects during teaching. The Education Standards Officers also supported head teachers views that intensified monitoring was helping them identify areas of need in the implementation of the 2013 revised curriculum.

It was also established that some schools increased contact hours with the pupils to allow the teaching of the other subjects which required more time with the pupils to take place. Some schools had to do away with the APU classes so that they can teach according to the recommended time table for the revised 2013 secondary school curriculum as stated in the standards and evaluation guidelines (MoGE 2013).

Research findings also established improvisation as one of the strategies that were used in schools to cater for the shortfalls of infrastructure and teaching and learning resources. This study findings established that some schools built the open classes which are called reading circles to accommodate pupils in case of shortage of infrastructure. However some teaching and learning resources were made locally by the teachers to facilitate teaching and learning.

Partnership with the community and stakeholders was also established as one of the strategies that helped the implementation of the revised 2013 curriculum. Some head teachers who were interviewed indicated that they had to lobby for some funds from parents through PTA during Annual General Meetings for infrastructure development.

The relevance of the revised 2013 curriculum to pupils and national development was also worth investigating. Through open ended questions in the teachers' questionnaires, the researchers established that the revised 2013 secondary school curriculum was relevant in that it enables pupils to gain knowledge to solve real life problems and that learners appreciate the use of practical subjects in everyday aspects and that makes all learners have some practical subjects to prepare them for their future. The findings also was also established that the revised curriculum helps because at the end of the day, pupils who are weak in academic pathways will be helped to acquire skills. However it was noted from the teacher's responses that it made teaching less difficult as some learners have knowledge of the other topics from their home experiences and it becomes easier to come in and combine the concepts.

Additionally, the findings of this study established that the respondents viewed the revised curriculum as a more practical approach to learning that would give pupils skills for their sustenance as opposed to depending on the white collar jobs. Respondents indicated that pupils were also correctly placed according to their abilities. The researcher also established that the government introduced TEVETA exams in design and technology studies at junior and senior secondary levels which indicated that pupils will be leaving school with skills which will sustain them in society even if they failed the academic subjects.

Suggestions on the improvement of the implementation of the revised 2013 secondary school curriculum could not be left out in this study. Respondents suggested that the government should provide adequate teaching and learning resources, train more teachers and improve infrastructure if the two tier education system has to be implemented effectively in schools.

5.6 Summary of the Theoretical Framework with Implications to the Study

The input process and evaluation model to curriculum development provides the guide to the process of curriculum implementation. It provides curriculum developers and implementers with the guidance to the process and the needs of the curriculum to be effectively implemented as what should be the input of various stakeholders and how the process should be done in order to produce desirable outcomes. The use of this theory could provide the curriculum developers and implementers with the knowledge of what should be done at every stage of the curriculum. The researcher is of the view that the theory can work in improving curriculum implementation in schools.

Summary

In Chapter five, the researcher discussed the findings of the study. The discussion followed the themes that emerged from the findings of the study which were informed by the objectives and research questions. The emerging themes were (1) the extent to which qualified teachers were available for the implementation of the revised 2013 curriculum, (2) provision and availability of teaching and learning resources (3) Availability of adequate and relevant infrastructure and (4), Established winning strategies for the implementation of the revised 2013 secondary school curriculum and relevance of the CIPP evaluation model to this study. In the next chapter, conclusions of the study and some recommendations based on the research findings will be made.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

Overview

In this chapter, the researcher presented a summary of the main research findings as answers to the research questions presented in chapter one. Furthermore, the researcher presented the study's recommendations and since curriculum implementation is one of the areas of education that needs attention in education, the researcher presents suggestions on areas of future research that might require attention to improve curriculum implementation.

6.1 Conclusion

It is important to note that the study looked at the implementation of the revised 2013 secondary school curriculum in Chipata district. In line with the research objectives, the researcher wanted to establish if schools had enough qualified teachers, adequate teaching and learning resources, infrastructure and establish winning strategies for the implementation.

6.1.1 Availability of Trained Teachers

The study established that schools did not have enough qualified teachers to teach both the academic and vocational pathways. It was established that due to lack of teachers, some schools were not offering some subjects in the vocational pathways and had opted to offer home economics which seemed to have less challenges with qualified teachers. The respondents also noted that that social studies subjects was difficult to teach because it is a combination of three subjects and teachers take a maximum of two subjects when they go for training.

6.1.2 Teaching and Learning Resources

The participants further indicated that they faced challenges in implementing the revised 2013 curriculum due to inadequate teaching and learning resources and inadequate infrastructure. Teachers and head teachers noted that some grades had not received books for the new subjects introduced in the revised curriculum.

6.1.3 Adequacy of Infrastructure

They also noted that the infrastructure in schools was not adequate suitable to support the teaching of other subjects like practical subjects which brought a challenge to curriculum implementation.

6.1.4 Suggested Strategies

Additionally, the study established strategies that the schools were using to implement the revised 2013 secondary school curriculum and respondents indicated that it was lessening the challenges encountered in curriculum implementation. Some of the strategies established were the intensified monitoring, the continuous professional development programmes for the teachers, and improvisation of teaching and learning resources, buying teaching and learning resources through school fundraising ventures. It was also established that schools made initiatives to cater for infrastructure by lobbying from parents to build more classrooms, labs and workshops for practical subjects. Some schools had outside open class to supplement the shortfalls. Some of the respondents indicated that they had to faze the APU classes to increase contact hours with the regular pupils since the revised curriculum demands a lot of time for pupils to learn. Community partnership was also highlighted in the findings. Qualified teachers, adequate teaching and learning resources and adequate infrastructure should be provided if the revised curriculum has to be successfully implemented in Chipata district.

6.2 Recommendations

The researcher made the following recommendations in view of the findings of this study and the conclusion drawn;

- a) The Ministry of General Education should pilot the reviewed curriculum in a few schools to test its strengths and weaknesses before implementing it in all schools for period of at least five years. This is likely to help in identification of gaps in the curriculum and ensure smooth implementation if the gaps are worked on from the piloted schools.
- b) The government should increase funding to the Ministry of General Education for infrastructure development and teaching and learning resources procurement so that the implementation of the revised curriculum is does not face many challenges. Increased funding is likely to help in infrastructure development and provision of teaching and

learning resources for curriculum implementation thereby improving the quality of education offered in schools.

- c) Colleges of Education should offer all the subjects in the revised curriculum so that teachers can be trained in vocational subjects from primary school to secondary school teachers. If teachers are trained from primary and pupils taught the vocational and academic pathways from primary, it will be easy to identify pupil's interest in either pathways and correctly place the pupils as they go to secondary schools.
- d) The government through the Ministry of General Education to send teachers for fast track training in vocational subjects so that the vocational teachers are beefed up in schools.
- e) The Ministry of General Education through the District Education Board Secretary to intensify monitoring in order to check the workability of the revised curriculum.
- f) The curriculum specialists should provide guidance to districts and furthermore to schools on how the two tier education system should be implemented because the finding reviewed that it lacked guidance.

6.3 Recommendations for Future Research

1. This study was only carried out in selected urban and peri urban schools of Chipata district. Related studies can be extended to rural schools and other geographical areas which were not covered in this study. Since the study comprised of a small sample, a larger sample of teachers and head teachers can be used.
2. This study only focused on the implementation of the revised secondary school curriculum in secondary schools. It did not establish how the curriculum is implemented in primary schools. It would be nice to extend the investigation to primary schools and assess the availability of teachers, teaching and learning resources and infrastructure for the two pathway.
3. It would also be interesting to extend the study to colleges of Teacher Education to establish if student teachers are adequately trained in the various subjects involved in the revised curriculum.

4. This study established that the implementation of the revised 2013 secondary school curriculum lacked qualified teachers in both pathways especially vocational subjects and natural sciences. It also established that the teaching and learning resources were not adequate in schools and challenges in infrastructure. There is need to come up with some strategies to improve the implementation through curriculum development centre.

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APPENDICES

Appendix 1: QUESTIONNAIRE FOR TEACHERS

THE UNIVERSITY OF ZAMBIA IN COLLABORATION WITH ZIMBABWE OPEN UNIVERSITY

INSTITUTE OF DISTANCE LEARNING

Dear Respondents,

I am a post graduate student at the University of Zambia in collaboration with Zimbabwe Open University. The questionnaire is aimed at collecting information for the implementation of the revised 2013 curriculum in secondary schools of Chipata districts and it's only for academic purposes.

Kindly respond to all questions in the instrument truthfully by ticking in spaces provided or a brief explanation in the spaces provided. The information you will give will be treated with the utmost confidentiality and is for only this study.

STUDY TITLE: The implementation of the revised 2013 secondary school curriculum: winning strategies.

SECTION A: Demographic Information

1. Name of School _____
2. Gender: Male ☐ Female ☐
3. Academic qualification: Grade ☐
4. Professional Qualification _____
5. Years of Teaching experience :
Below 5 ☐ 5-10 ☐ 11-15 ☐ 16 and above ☐
6. Teaching subject _____

SECTION B: Availability of trained teachers, teaching and learning resources.

7. What subject do you teach?

8. (a) Do you teach the subject you were trained in Yes ☐ No ☐

(b) If no why? _____

9. (a) Do you have enough teachers in this school for vocational career pathways Yes ☐ No ☐

(b) Explain your answer _____

10. Are there some teachers undergoing training for vocation or academic pathways in this school? Yes ☐ No ☐

Explain your answer -

10. Why is it important to have qualified teachers for specific subjects in curriculum implementation?

SECTION C: Provision and availability of teaching and learning resources

11. Who provides the teaching and learning resources for the school? DEBS Office ☐
School Administration ☐ Parents ☐

12. (a) Do you have enough Teaching and Learning resources in school? Yes ☐ No ☐

(b) Explain your answer _____

13. (a) Is the school administration supportive in the provision of teaching/learning resources

Yes ☐ No ☐ to some extent ☐

(b) Explain your answer _____

14. Why is it important to have adequate teaching and learning resources for curriculum implementation? _____

15. Indicate a tick (✓) in the appropriate box

T/L Resources	Adequate	Not adequate	No Available
a. Desks			
b. Stationery			
c. Text books			
d. Laboratory instruments			
e. Home Economics Utensils			
f. Computer			
g. Other equipment			

16. Do you have adequate classrooms in school? Yes ☐ No ☐

(b) Explain your answer_____

17. Tick (✓) in the column which is applicable.

Infrastructure	Available	Not Available
H/E Department		
Science Labs		
Woodwork shops		
Project Fields		
Computer Labs		
Woodwork shop		
Other		

18. Why is it important to have adequate and suitable infrastructure for the implementation of revised curriculum. _____

19. (a) Do you follow the standard time for the subjects Yes ☐ No ☐

(b) Explain your answer _____

20. How is the performance of the pupils at grade 9 and 12 level?

Poor ☐ Good ☐ V. Good ☐ Excellent ☐

(b) Explain your answer _____

21. (a) To what extent does infrastructure affect the implementation of the vocation career

Pathways? To some extent ☐ to a large extent ☐

(b) Explain your answer? _____

22. Do you guide the pupils on the subjects to take? Yes ☐ No ☐

(b) If ye why? _____

(C) if no explain your answer _____

23. What are the challenges in the implementation of the revised 2013 secondary school curriculum in your school?

24. How do you manage to overcome the challenges?

25. What are the successful aspects of implementation of the revised curriculum?

26. (a) Is the revised curriculum beneficial to the pupils Yes ☐ No ☐

(b) Explain your answer _____

27. What strategies do you suggest should be put in place for the successful implementation of the 2013 revised curriculum?

Thank you for your cooperation and participation.

Yours faithfully,

Priscar Mbewe.

Appendix 2: Interview schedule guide for the Head teachers

THE UNIVERSITY OF ZAMBIA IN COLLABORATION WITH ZIMBABWE OPEN UNIVERSITY

INSTITUTE OF DISTANCE LEARNING

1. What is the staff establishments of your school?
2. Do you have enough trained teachers for the implementation of the vocational career pathways?
3. Do you conduct CPDs on how best the vocational career pathways can be implemented?
4. How regularly do you monitor the teaching of the vocational career pathways
5. Do you have teachers who were seconded to teach the vocational pathways subjects?
6. Do you have teachers on study plan?
7. What are your views about the teaching and learning resources?
8. Do you as an administration provide teaching and learning resources?
9. Do you have adequate infrastructure in school?
10. Do you have relevant infrastructure to support the vocational career pathways implementation?
11. How is the performance of the pupils in different subjects?
12. What is the average number of pupils per class?
13. Do you face any challenges in the implementation of the vocational career pathways?
14. What are the successes of the revised 2013 secondary school curriculum have you noticed
15. Suggest strategies that can be put in place to support the effective implementation of the revised 2013 curriculum.

Thank you for your participation

Appendix 3: Interview schedule guide for Education Standard Officers

THE UNIVERSITY OF ZAMBIA IN COLLABORATION WITH ZIMBABWE OPEN UNIVERSITY

INSTITUTE OF DISTANCE LEARNING

1. Do schools have trained teachers for the vocational career pathways implementation?
2. Does Chipata district have teachers on training plan for the vocational subjects?
3. How often do you monitor the implementation of the revised 2013 curriculum?
4. As a district, what measures have you put in place for the implementation of the 20 13 revised curriculum?
5. Do you conduct workshops or refresher courses for the teachers as a district on the vocational career pathways subjects?
6. Who provides teaching and learning resources for the schools?
7. How is the pass rate for the pupils in the district in grade nine and twelve examinations?
8. What is the recommended number of pupils in classes?
9. Do schools have adequate infrastructure?
10. What role is the District Education Board Secretary office playing in infrastructure development for the schools?
11. Do school have relevant and suitable infrastructure for the implementation of the revised 2013 curriculum?
12. What are the successes observed in the 2013 curriculum implementation?
13. Are there any challenges encountered in the implementation of the vocational career pathways?
14. Do you think the revised 2013 curriculum will give quality education for sustainable development to the pupils?

Appendix 4: FOCUS GROUP GUIDE FOR PUPILS

THE UNIVERSITY OF ZAMBIA IN COLLABORATION WITH ZIMBABWE OPEN UNIVERSITY

INSTITUTE OF DISTANCE LEARNING

Dear pupils,

This discussion is aimed at collecting information for the implementation of the revised secondary school curriculum in selected secondary schools of Chipata district and it's only for academic purposes. Kindly feel free to take part in the discussion as the answers will be treated with the utmost confidentiality. The discussion will consist of 6 pupils and will last for 1 hour 30 minutes. The guide consist 10 questions as follows;

1. How are you finding the revised curriculum?
2. Do you receive guidance for the vocational career pathways you are learning?
3. Do you have enough learning materials for both pathways for example books and desks?
4. Do you learn the subjects according to the time table?
5. Do you have enough class rooms and labs for learning?
6. Do you have enough teachers in school?
7. How do you find practical subjects and other subjects?
8. Do you have any challenges faced in different subjects?
9. Who provides the teaching and learning resources you use in class?
10. Which subjects do you like most?

Thank you for your participation

Appendix 5: Document analysis guide

**THE UNIVERSITY OF ZAMBIA IN COLLABORATION WITH ZIMBABWE OPEN
UNIVERSITY**

INSTITUTE OF DISTANCE LEARNING

Documents to be analysed will be;

School examination analysis

School minutes

CPD timetable

Pupils class timetables