

**FACTORS THAT INFLUENCE HOLISTIC LEARNING: A CASE
STUDY OF SELECTED UPGRADED SCHOOLS IN MUMUNI ZONE**

LUSAKA, ZAMBIA

BY

MWAPE JULIET NSANGWE

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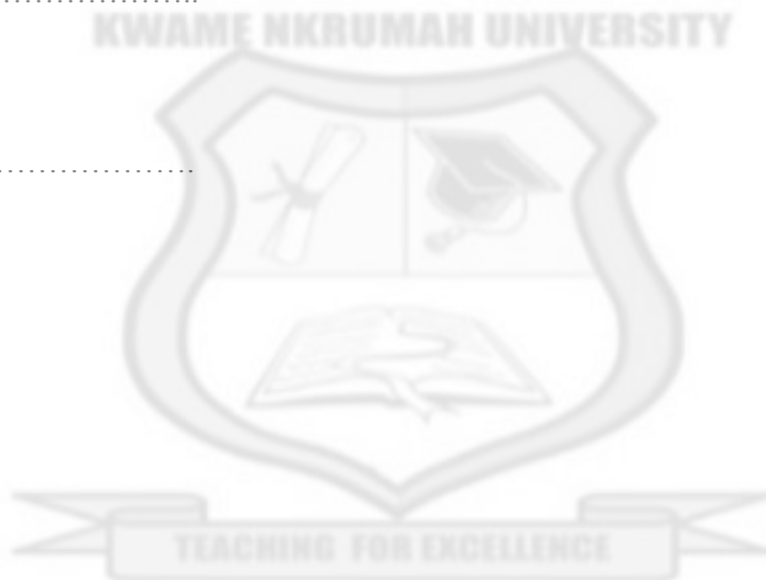
DECLARATION

I, **Mwape Juliet Nsangwe** declare that this dissertation,

- a) Represents my own work
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- c) Does not incorporate any published work or material from another dissertation without acknowledgement.

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CERTIFICATION APPROVAL

This Dissertation by **Mwape Juliet Nsangwe** has been approved as a partial fulfilment of the requirements for the award of the Degree of Master of Arts in Educational Administration and Leadership by the Kwame Nkrumah University.

Examiner.....Date.....



DEDICATION

This dissertation is dedicated to my late father Mr. Jericho Levi Nsangwe and my mother Mrs. Ennie Bwale Nsangwe who have been pillars of my education journey. The work is also a special dedication to my children Lois, Helon and Asante as well as my husband, Festus Shaibu Lubinga for their special time offered to me when I was obliged to perform maternal duties.



ABSTRACT

The need to increase access to education is very important for social, economic and political development of a country. This study was conducted to establish factors that influence holistic learning in selected upgraded schools in Mumuni Zone, Lusaka District of Zambia. The specific objectives were to establish the factors that influence holistic learning in selected upgraded schools: to find out if the selected upgraded schools have adequate instructional materials, to assess for the suitability of the classroom buildings, laboratories and playgrounds (infrastructure) for holistic learning to occur. The study was guided by pragmatism as a research paradigm which is the world view of philosophy and the approach that was used was that of mixed method qualitative and quantitative method and the descriptive survey was used as a research design. The population for this study comprised four upgraded schools in Mumuni Zone from which three schools were sampled. These were A, B, and C. 53 respondents were selected, these comprised 3 Deputy Headteachers and 50 teachers. The population of the three upgraded schools A, B and C was made up of 203 respondents. The sample size was made of 50 Teachers and 3 Deputy Head Teachers. Fifteen teachers were male while 35 were female representing 30% and 70% respectively. The sampling procedures employed were both probability and non-probability techniques to ensure there is no objectivity in the selection of information. Purposively sampling was used to select the Deputy Head Teachers while non-probability sampling was used to select Teachers. In-depth interview guide was used to collect information from Deputy Head Teachers while questionnaires were used to collect information from Teachers as tools for data collection. The study revealed that holistic learning was not significant at school A, B and C because teaching methods, learning space and pastoral care were not significant except the curriculum influence. In the same way, chalk and stationery were the only available instructional materials. This made it difficult to attain holistic learning. Another major finding was that, administration and office blocks were the only suitable infrastructure available in the upgraded schools A, B and C. In terms of utilities, the schools had suitable connections, water and trash bins. The study also found that not all schools had utility vehicles while security was considered suitable. It is therefore concluded that upgraded schools have not achieved a significant level of holistic learning. The study recommends that the government builds more classrooms in order to increase the learning space. The study

further recommends the community and private stakeholders to engage in projects to assist schools to acquire the necessary materials and equipment.

Keywords: *Holistic education, Holistic learning, Upgraded schools.*



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ACRONYMS AND ABBREVIATIONS

CEA	-	COUNCIL OF EDUCATIONAL AUTHORITY DEVELOPMENT
DFID	-	DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
ECE	-	EARLY CHILDREN EDUCATION
LEA	-	LOCAL EDUCATION AUTHORITY
MOE	-	MINISTRY OF EDUCATION
NFER	-	NATIONAL FOUNDATION FOR EDUCATIONAL RESEARCH
SDG	-	SUSTAINABLE DEVELOPMENT GOALS
SERCE	-	SECOND REGIONAL COMPARATIVE EXPLANATORY
SIPIS	-	SCHOOL INFRASTRUCTURE PERFORMANCE INDICATOR
START	-	SCHOOL TRANSITION AND RESILIENCE TRAINING SYSTEM
WLGA	-	WELSH LOCAL GOVERNMENT ASSOCIATION
ZANEC	-	ZAMBIA NATIONAL EDUCATION COALITION



CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter highlights the background of the study, statement of the problem, purpose of the study, study objectives and research questions. It also highlights the significance of the study, the theoretical framework, conceptual framework and operational definitions of terms used in this study.

1.2 Background of the Study

The Upgrading of schools is one of the strategies used to increase access to education. This usually happens when a school changes its mandate instead of enrolling pupils for primary school section only, it also adds Early Childhood Education (ECE) up to grade 12 level. Definitions for upgrading schools are socially constructed and have developed over time. Holistic Education embraces holistic learning for learners to develop not only in Mathematics, Science, English Language, Civic Education and other mainstream subjects but also appreciating the core values. These are, love, kindness, compassion, fellow-feeling, hardworking, physical, spiritual emotional, social as well as aesthetic values. Usually upgraded schools remain the way they were built initially as no additional buildings are normally added. Hence the appropriate size of the school in determining environmental suitability of a school in accommodating pupils is not adhered to (Adedokun, 2017).

Globally, in Germany and the Netherlands, the upgrading of schools is referred to as track mobility. Both countries established educational reforms in the late sixties changing the conditions for track mobility differently (Journal of European Society, 2000). At times, upgrading is also referred to as intra-secondary transitions. The National Foundation for Education Research refers to it as transition from primary to secondary school. (NFER, 1999). It is acknowledged as the key issue in educational policy in Wales and elsewhere. As reported by the findings from a research project sponsored by the Welsh Local Government Association (WLGA) to explore good practice in transition in Wales. The problems were that so many pupils were coming from different schools to work with feeder schools. It was observed that transition is important and effective if appropriate arrangements for the transfer of pupils from primary to secondary schools as means of ensuring, curriculum continuity and progression of pupils' education.

In Sub-Saharan Africa, all countries have committed themselves to the goals of completion of primary schooling and learning for all as set at the World Education Forum in Dakar in the year 2000 (Verspoor, 2008). However, most Sub-Saharan countries are far from reaching the Dakar goals. Only the improvement in quality and retention as well as increase in admissions in grade one at the expense of neglecting the human resource base for sustained development. As a result, less than one-third of the children of school learning age currently acquire the knowledge and the skills specified in their national primary curriculum.

In Australia, the mixture of year seven to secondary school present a golden opportunity for school leaders to reinforce understanding among the teaching staff of both primary and secondary schools that they are partners in student's journey from kindergarten through year twelve (Groot, et al, 2017).

Other factors that influence holistic learning in upgraded school include bringing the school facilities up to the 21st century standard in order for the school children to enjoy a safe and healthy environment (Pearlman, 2010). Upgraded schools need billions of kwacha for rehabilitation (Chingos and West, 2010).

Andamon and Woo, (2019) expressed more confidence in the evolution of the research on the impact of infrastructure variables. Other advanced research has been done such as the impact of school building condition on student success. Electricity in the school and pupils achievement has a correlation (Sauchuck, 2011). The term infrastructure captures the whole range of capital needs. It creates the physical environment of the school (Barret, et al, 2019).

In Zambia, the government upgraded 220 basic schools into secondary school. The Zambian government has embarked on the project of upgrading schools from Early Childhood Education to Secondary School level up to grade twelve. (MOE,1996) states: "Currently, the Zambian formal education system has a seven years primary education, four years of lower and three years of upper primary education. Five years of secondary school, two years junior and three years of senior secondary with four years of university first degree. Proceeding from lower to higher educational levels is determined by national competitive examinations at the end of grades, 7, 9, and 12"

MOE 2003-2007 situational analysis a qualitative and quantitative studies were taken and the findings were that the high school subsector had been neglected in the past year due to economic situation of resources to the basic education Sub sector.

Nanjumba, (2013), acknowledges that there is a strong evidence that high quality infrastructure improves student outcomes and reduces dropout rates, including other benefits. It is clear that students come from mainly low income and rural facilities to attend poorly equipped upgraded schools.

A large number of these secondary schools are missing a Science laboratory and 40% do not have indoor toilets (Lohan, et al, 2020). Hence the need for quality teacher training which has an impact on the teaching methods improvement (Tshabalala, 2014).

The qualities and characteristics of the learning environment are determined by a lot of factors such as school policies, government structures and many other factors for them to facilitate holistic learning which may be regarded as elements of a learning environment (Saroyan, 2019). This means that there is no optimum single learning environment making teaching more interesting (Adedokun, et al, 2017).

It is against this background that the study was conducted to establish Factors influencing holistic learning in selected upgraded schools, Lusaka District.

1.3 Statement of the Problem

The Zambian government provides useful resources to positively enhance the educational standards system. However, some upgraded secondary schools do not provide holistic learning. Effective learning requires well equipped teachers, adequate learning environment and availability of teaching and learning materials. Primary education is being offered freely as well as early childhood education. Greater misunderstanding about Free Primary Education have arisen. Primary Education cannot be said to be free, it is expensive, and it costs money to build classrooms, proper training and pay teachers, provide text books, supportive, supervision, assessment and many others (MOE, 2007). Most of the money used is fundraised by schools. Construction of more classroom blocks, staff retention, provision of teaching and learning materials, accounting and financial management controls slow progress in upgraded schools reform, physical learning environment is unsatisfactory. Despite, the Zambian government having built some of the Secondary Schools and upgraded others, holistic learning is still not being achieved. What is not known are factors that influence holistic learning in upgraded schools hence that is the reason why this study examined the factors that influence holistic learning in selected upgraded schools in Mumuni Zone, Lusaka District.

1.4 Purpose of the Study

The purpose of the study was to establish Factors which influence holistic learning in selected upgraded schools in Mumuni Zone of Lusaka District.

1.5 Objectives

- i. To establish the factors which influence holistic learning in upgraded schools in Mumuni Zone of Lusaka.
- ii. To find out if the selected upgraded schools in Lusaka's Mumuni Zone have adequate instructional materials for Holistic.
- iii. To assess the suitability of the school infrastructure for holistic learning to occur in the selected upgraded schools in Mumuni Zone of Lusaka.

1.6 Research Questions

- i. What are the factors that influence holistic learning in selected upgraded schools in Mumuni zone of Lusaka?
- ii. Do upgraded schools in selected schools in Lusaka's Mumuni Zone have enough instructional materials for holistic learning to take place?
- iii. How suitable is the school infrastructure for holistic learning to occur in the selected upgraded schools in Mumuni Zone of Lusaka?

1.7 Significance of the Study

It was envisaged that the findings of this study would give more insight to the Ministry of General Education on factors to consider for holistic education to take place in the upgraded secondary schools. It was also hoped that the findings of this study could benefit the schools and their surrounding communities and the ministry in general. Lastly, it was envisaged that these findings could help in the effective implementation of holistic education in the upgraded schools and could benefit if the strategies for holistic learning are implemented for social and economic growth of the country. The study may also bridge the gap between primary and secondary schools' collaboration in the implementation of holistic learning.

1.8 Limitations

The study was affected by various limitations. One of the limitations is the research design: A case study has an inherent weakness of its findings not being able to be generalized, because of this, the findings of this study only shed light on the selected upgraded schools in Mumuni zone not the entire District of Lusaka and Zambia at large. The research was conducted on

three upgraded schools in Mumuni Zone, Lusaka District. The sample was purposively selected within locality due to proximity and resources. It was not representative of all the upgraded schools in Mumuni zone. The purpose of selecting these schools was based on the cost effectiveness as the schools were located nearer to the researcher's residence.

1.9 Delimitations

The research was conducted on three upgraded schools in Mumuni Zone, Lusaka District. These are urban day upgraded schools. These schools have been named as school A, B and C for the purpose of anonymity and confidentiality. No rural or peri urban school was included in the study. The sample was purposively selected within locality due to effective use of time and resources. The study was limited to urban day upgraded schools.

1.10 Conceptual Framework

The study was anchored on appropriate learning principles in relation to Factors which influence holistic learning in upgraded secondary schools in Lusaka District.

Effective teaching and learning require the teacher to under-take the basic principles of learning. These different concepts are governed by the laws. Within the principles of education, holistic learning is enshrined. The human values, integrated learning concepts which start with the interaction with the environment. Students are expected to study Math, Science, Languages as well as human values to bring about peace, calmness of the mind which will prepare the learner for the journey within and that is 'Educare'. It includes the significance of human experience (Shih, et al, 2012).

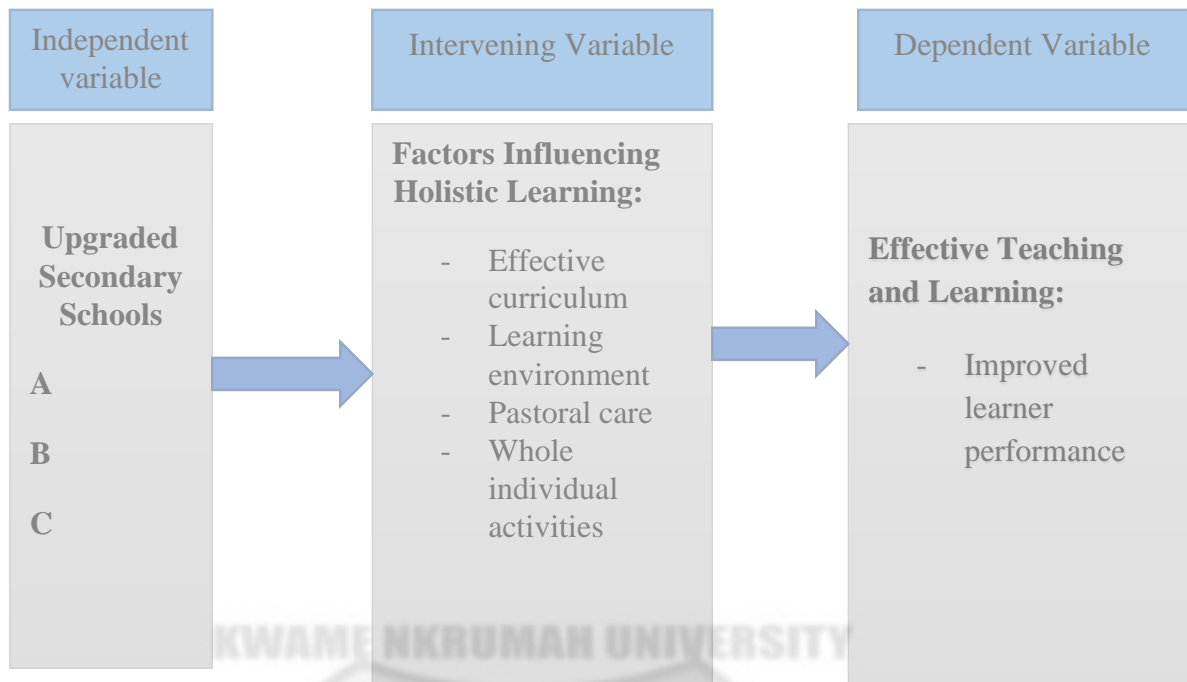


Figure 1. 1. Conceptual Framework

source: Field data, 2020

This is related to the study as it highlights the factors that influence holistic learning in upgraded Schools. It stipulates that the study was an examination on factors that influence holistic learning in upgraded schools and not causes or reasons why there is no holistic learning in upgraded schools.

It also highlights the importance of having a significant other than various reasons when it comes to learning and adopting the desired environment under which ineffective teaching and learning in upgraded schools can be avoided.

Learning is the acquisition of knowledge, habits, skills, abilities and attitudes through the interaction of the whole individual and his total environment (Mondal, 2015).

Hill, (2014) emphasizes that learning is a broad term which encompasses how we perceive and understand the world, making meaning, mastering of abstract principles and understanding proofs. Remembering factual information, acquiring methods, techniques and approaches, recognition, reasoning, debating ideas or developing behaviour appropriate to specific situations, change and translating the knowledge into practical implications for teaching (Ito, et al, 2019).

Learning is a process of active construction and a social phenomenon involving individual experience behaviourism and constructivism. Behaviourism is the psychological learning through real life experience (Walinga, 2019). Constructivism involve development in theories after gaining experience (Guiney and Zibulsky, 2017).

In Upgraded schools, pupils and teachers learn through experience and instructional learning.

1.11 Theoretical Framework

The research was guided by Holistic learning theory. Holistic learning requires teachers to nature their own deeper selves so as to become more aware of the students and their feelings in class (Miller, 1999). The theory is tied to the research in that students in an upgraded school are told to be prepared for the world at large in all areas such as the development of whole human being. This means Children must be prepared for the world at large in all areas such as development of whole human being. Also, the Child should connect with the environment, school subjects, society, to the earth and to self.

It is also related to the idea of reflexive observation as pupils observe in four stages leading to new experiences. It emphasizes the experiences to be of real life. Learning by experience, where knowledge is transferred. All these influence the learning process and produces a full individual after learning at work, home and in all spheres of life.

The revelation to the study is that all these theories of learning support the factors that influence holistic learning in upgraded schools as it highlights factors that influence holistic learning in upgraded schools. Experiential learning theory where experience is acquired in a continuum.

- i. Concrete experience (apprehension)
- ii. Abstract conceptualization. (Comprehension)

Reynolds and Vince, (2017) considered reflexive observation (intension). Hence learners go through a learning cycle. After acquiring the stages of learning, the learner forms abstract concepts about what occurred which act as a guide for future actions. Hence a test is conducted leading to new experiences and goes through the cycle again.

For instance, in a Role play scenario, pupils act out a role play in class and the teacher asks questions and then an exercise is given. Simulations and gaming and learning could be

improved to strengthen the entire experiential learning cycle for the learner (Geroimenko, 2020).

The basis of learning theories focuses on 'Learning by doing'. This kind of thinking focuses on critical thinking rather than memorization and rote learning. Davis (2011) emphasizes the experiences to be of real-life situations:

- (i) Focuses on carefully chosen experiences supported by reflection and critical thinking and synthesis.
- (ii) Structured experiences to allow initiative, make decisions and accountable for their decisions.
- (iii) Students actively engaged in posing questions, investigating, experimenting being curious, solving problems, assuming responsibility, being creative and constructing meaning.
- (iv) Relationships are developed and nurtured: student to self-student to others and student to the world at large.
- (v) Instructor and student may experience success, failure adventure, risk taking and uncertainty because the outcomes of the experience cannot be predicted.
- (vi) Opportunities are nurtured for students and instructors to explore and examines their own values.
- (vii) The instructor's primary roles include setting suitable experiences, posing problems, setting boundaries, supporting students, insuring physical and emotional safety and facilitating the learning process.
- (viii) The instructor recognizes and encourages spontaneous opportunities for learning.
- (ix) Instructors strive to beware of their biases, judgement and preconceptions and how these influences the student.
- (x) The design of the learning experience includes possibility to learn from natural consequences, mistakes and successes.

The research has chosen this theory because (Cherry, 2019) suggests that it involves learning by experience, knowledge is transferred thorough experience. It ignores subjective learning.

It emphasizes new experiences including cognition, environmental factors and emotions influence the learning process. The pupil produces qualities of a full individual after learning, at work, home, and in all spheres of life hence being holistic in nature.

1.12 Operational Definitions

Holistic Education: Educational curriculum frameworks of teaching and learning experience beyond the core academics, Mathematics, English, Science and other mainstream subjects. Educators seek to address the emotional, social, ethical, good character, right conduct, peace, truth, love and peace to bring about the potentialities in each child (Miller,2017).

Holistic Learning: Student's life experiences and general education as well as professional education (Shih, et al, 2018).

Infrastructure: Physical capital or fiscal resources, Physical inputs the whole range of capital needs (Sickle and Thomas, 2011).

Instructional Materials: Variety of teaching methods, media, text books, computers, internet, charts and many more (Mupa and Chinooneka, 2015).

Transition: (Bassok, et al, 2016) entering schooling a new grade. School transitions are equated with major changes.

Upgraded/ Combined School: Structural change in education from providing Universal education from pre-grade to grade nine extending to grade twelve.

1.13 Summary

Chapter one was the introduction to the study. In the background of the study, the aspect of school upgrading is described in relation to the global, the African and the Zambian perspective on factors influencing holistic learning. The statement of the problem describes the challenges surrounding school upgrading in Zambia and how provision of holistic learning has been challenged revealing the gaps in research that the study focused on. The chapter outlines the three research objectives from the research questions ensued. The significance of the study indicates how the study will be useful to various stakeholders in the MOGE, upgraded schools and academia. The limitations and delimitations of the study are outlined. Finally, the chapter concludes with a detailed conceptual framework and theoretical frame work which formed the

basis of the study. The later part is of the operational definitions of terms employed in the study.



CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

Literature review has been defined as an account of what has been published on the topic by other scholars and researchers. This chapter reviews relevant literature on the Factors that influence holistic learning in upgraded schools in Mumuni Zone, Lusaka district. It also presents Literature on whether the selected upgraded schools possess adequate instructional materials as well as assessing the suitability of the classroom buildings, laboratories, playgrounds and infrastructure. Finally, it concludes by making a general analysis on different studies from a world, African and Zambian perspective in relation to the factors which influence holistic learning in upgraded schools.

The chapter shades light on the meaning of the concepts of holistic education and holistic learning. After explaining the two concepts, the literature review is presented thematically using holistic learning, holistic education, factors which influence holistic learning in upgraded schools, conducive learning space, effective curriculum, activities to educate the whole personality, pastoral care, teaching methods, availability of instructional material and suitability of infrastructure.

2.2 Meaning of holistic Education and holistic learning

Miller (2017) defines holistic education as a framework guiding teaching and learning in and outside the classroom and how schools are operationalized as world view of education and what it must constitute and be delivered. It entails educating the whole person beyond core academics and includes students to develop compassionate understanding of the world around the Comprehensive approach to teaching where educators seek to address the emotional, social ethical and academic needs of students in integrated learning format. Bautista (2016), Similarly acknowledges Holistic learning approach as education with the holistic perspective concerned with the development of every person's intellectual, emotional, social, physical, artistic, creative and spiritual potentials. It is an approach that seeks to fully activate all aspects of the learners personality intellect, (emotions, imaginations, body) for more effective and comprehensive learning (cherry, 2019). Scholars have regarded holistic learning to consist generally of two categories; academic and non-academic learning areas (Bautista, et al, 2016). They are further broken down into Physical and economic factors (Mondal, 2014). Non academic areas as application of philosophy by

teachers and pupils outside the classroom. It includes concern for student's moral manifestation, cultivation of human nature, student's life experiences and general education as well as professional education (Shih, et al, 2018).

2.3 Factors which influence holistic learning in upgraded schools

2.3.1 Conducive Learning Space

Garner, (2019) analyses learning space in terms of diverse physical locations, context and cultures in which students learn. The term also encompasses the culture of the school or class, its ethos and characteristics. The aim is to create a total environment of learning that optimizes the ability of students to learn. Therefore, learning environments include, characteristics of the learners, the goals of teaching and learning, the activities that will best measure and drive learning and the culture that infuses the learning environment. The child connects with the environment so that learning is deeply integrated. This include connection among school subjects, members of the school, the earth and the self-connection among subjects at different levels. A teacher can link a novel to its historical time period, subject's major themes such as personal identity by linking Literature, history, art, music and science. The classroom must be arranged in such a way that there is enough learning space to accommodate various teaching strategies (Adedokun, 2017).

A study conducted by Andamon (2018), on educational facilities in Australia: Challenges and Prospects: shows that climate change was leading to increased frequency, intensity and duration of heatwaves not only in Australia but globally. Particularly to the school's indoor environments the recommendations were that diverse policies on cooling and ventilation in educational facilities across Australia be enacted. The research is related to the study in that learning space is critical in support for holistic learning. Hence in upgraded schools this issue is addressed as a factor for holistic learning.

2.3.2 Effective Curriculum

According to Lopez, et al (2016), the use of resources should be effective so as to ensure that all the subject in the curriculum are taught accordingly. There is need to plan for success in the time –tabling staffing and resourcing matters need to be addressed such as secondary schools require specialist teaching and facilities (Uduku, 2015), bringing the school up to 21st century standards in order for the school children to enjoy safe and healthy environment

(Pearlman, 2010). Funding school facilities is a critical issue with the governments. Several policies have been passed but the subject seems to be always new.

The curriculum should be meaningful to the students' welfare agenda, providing curriculum materials to strengthen student resilience. This will enable teacher team work, mutual support and improve ongoing professional development across primary and secondary school. It will also promote strategies for whole school and classroom organization that contribute to a safe and supportive environment.

2.3.3 Activities to Educate the Whole Personality

Pupils learn collaboratively with others in cooperative learning groups. The school should also be a place where people know one another and feel a sense of responsibility towards the total school environment. 'Learning has been defined as relatively permanent change in behaviour, cognition effect that occur as holistic educators do more than prepare students for the workplace. They prepare students to make a better world. According to Miller (2017), it is vital that Holistic learning is adhered to in terms of content, process, learning and assessment. It is influenced by the thoughts of Piaget, educators in the 1960s and early 1970s. Hence the beginning of open education, active learning and learning centres in the classroom. Testing was not regarded as vital. Students of diverse race are to be included. A wide range of teaching and learning strategies are encouraged. The child connects with the environment so that learning is deeply rooted. School subjects, members of the school, the earth to the self all reflect holistic learning. The classroom is seen as a learning community where they can work collaboratively with other students in cooperative learning groups. The school should be regarded as a place where pupils know one another and feel a sense of responsibility toward the total school environment. All school staff including secretaries and custodians should create a welcoming atmosphere. Pupils should feel connected to the community members in the life of the school. Student can also be sent to do projects around the school. Students can learn to be connected to the earth by planting trees. The study is important to the research as the topic of discussion because of the factors for holistic learning requires schools to have enough text books and reference books for research and lesson preparations for teaching.

2.3.4 Pastoral Care

Pupils need to develop a deeper sense of self, the source of wisdom and compassion. They should learn to be less violent and more compassionate in the world. This is all learnt mostly

from the teacher's personality. It is important to the failures and success of learners, the way he interacts with pupil's personality taught, helps to determine the kind of behaviour which emerges from the learning situation. The teacher possesses power to lead, inspire pupils through the influence of moral, personality, physical appearance, mental capacity, attitudes towards others. Pupils love a happy, sympathetic enthusiastic and cheerful teacher.

A study by the Department of Education and training of Australia was taken on school Transition and Resilience Training (START) which is a program encompassing the framework for student Support Services in Victorian Government Schools and the middle years of schooling theory and practice strategy. The START program had been designed to assist schools to plan and implement crucial primary prevention strategies to build belonging and promote wellbeing in all students as they reach a stage of potential vulnerability. The needs of students were addressed by including the ideas in the curriculum.

The key findings were that school transitions can be stressful for many students, particularly early maturing girls and low achieving boys (Resnick, et al, 1997). Fuller et al, (1999) found several factors that are critical in the capacity of students to cope with stress and adversity. These factors would engender students' sense of belonging, fitting or connecting regarding family, peers, school and community.

The research relates to the study in terms of the transition process which pupils undergo as they move from one grade to the other at a different school or at the same school. They encounter challenges in upgraded schools such as mentioned in the study which need to be addressed in upgraded schools for holistic learning to occur.

2.3.5 Teaching Methods

The teaching methods include instructional materials and strategies that are used if favourable and adequate teaching has to produce the desired results in upgraded schools (Mondal, 2000). The type and quality of instructional materials and equipment play an important part in instructional efficiency of the school. This include lack of adequate text books, revision books and resource books fostered by qualified teachers. According to Bueck, Lenhart and Roskos, (2011), there is need for torchlights if teaching and learning objectives are to be achieved. The quality of teacher training has an impact on teaching methods and improvement of skills, including the quality of learning materials (Tshabalala, 2014). The resource use in classrooms, teachers need to vary the techniques of teaching. The methods of

how work is done in schools, quality improvement is cardinal to improving achievement in schools (Delvin, et al, 2011). Teachers have to get involved in text book use, furniture, syllabi should be revised and relevant to the curriculum taught. Explanations and demonstrations are useful in teaching and learning. Team work should be encouraged and teachers also encouraged to use media during teaching and learning.

A study by the United Nations on Sustainable Development Goals for the 2030 vision on teaching, points out quality as the most important factor in determining student learning outcomes despite massive investment in teacher education. It also found out that quality teaching is in line with the UN Sustainable Development Goals for Education (SDG4). Quality teaching ensures inclusive and equitable quality education which provides lifelong learning opportunities for all. It includes targets to achieve universal primary and Universal secondary education by 2030. The study focuses on improving pedagogy in low- and middle-income countries through teacher education and development. A study covering 40 percent child population showed that after three years of public schooling, almost half of all students could not read a simple word. Seventy percent could not read at all the words in a basic sentence and only one child in seven could read a simple paragraph and infer meaning from it one in five children could not recognize numbers and half of all children could not manage double digit addition.

The recommendation by DFID in (2005) was that practice of under-trained teachers must be improved if they were to contribute positively to provision of Holistic Education in upgraded schools, the use of open-learning self-study materials and support from experienced teachers conducting effective CPD programmes must be effective.

The study is related to research on factors which influence holistic learning in upgraded schools in that teaching quality is a very important factor in determining student learning outcomes. The teachers involved in teaching upgraded schools must have the desired qualification as well as practical evidence of knowledge of the job in order to produce the desired learning outcomes. In Zimbabwe, a study conducted by Mupa and Chinooneka in (2015), on effective teaching established that Teachers have limited instructional materials, text books and syllabuses. Then pupils learn in harsh and uncondusive teaching and learning environment with low morale. It was recommended that the teachers should engage in the use of variety of teaching methods, preparation of variety of media for use in the teaching and learning.

In agreement with this, Pearlman (2010) reveals that the factors for holistic learning in upgraded schools if not applied well, they contribute to ineffective teaching and learning in primary and secondary schools. Specifically, many educational authorities have adopted the philosophy of inclusion to address the social and moral obligations to educate children. Therefore, the need to adapt learning teaching and assessment, strategies and practices that allude to holistic approach. (Vickerman and Maher, 2017).

2.3.6 Availability of Instructional Materials

Instructional materials refer to variety of teaching methods variety of media in teaching and learning, textbook and syllabuses (Mupa and Chinooneka, 2015). These are aimed at determining students' outcome in school. Murillo and Roman, (2015) conducted a research on the impact of school resources on the academic performance of primary education students in Latin America. They used a 4-level multilevel model which was applied to the data of the second Regional comparative and Explanatory study (SERCE) conducted by UNESCO which researched 180,000 students in the third and sixth grades of primary education at 3000 schools from 15 countries in Latin America. The findings show that the availability of books in the library, text books and computers in the school do have an effect on the achievement of primary education students in Latin America. However, the study by Mupa and Chinooneka (2015) in Zimbabwe shows that lack of instructional materials in teaching and learning contribute to ineffective learning.

In Kenya Bizimana and Orodho (2014) conducted a study by providing the schools with the funds necessary to purchase the material as required. The table below illustrates the materials provided:

Table 1. Instructional Materials

Basic pack of stationer	1per student per year
Chalk	5 boxes per classroom
Book	1 per teacher to last for years
Enrolment and attendance	1 per class per year
Register of core text books	1 per class per year
6 core text books	1 per teacher to last for years
8 core teachers supplementary	1 per subject

Reading materials in English	1 reading book for enrolled student
Science kit for P1-P4	1 per school

Source: Bizimana and Orodho (2014)

The findings were that there was improvement pertaining to performance due to availability of resources, instructional materials such as chalk, books and many others.

Another study by Carron and Chau (1996) in Nigeria showed that instructional practice in Africa is poor. It was assumed that all teachers teach in a coherent and organized way that is focusing on the instructional target of the curriculum and are capable of change unrealistic perception of the classroom. Teachers and pupils are often absent. The teacher does not have the competence required to teach well, he does not follow the precise work plan merely reads from the text books and does not use the blackboard. Many teachers may have a poor command of the language of instruction. There is low parental support in terms of extra materials. Only few children are guided in homework by their parents, hence the need to adapt learning teaching and assessment strategies and practices that allude to holistic approach (Vickerman and Maher, 2017). The researcher is also aware of various scholars that have conducted similar research among other related works such as Mupa and Chinooneka (2015) on reflexive teaching in schools. Teachers were to engage in the use of variety of teaching methods preparation of variety of media for use in teaching and learning. The study recommends the need for schools to employ qualified teachers with the knowledge of effective teaching and proper supervision by head teachers for proper teaching and skimming.

Mupa and Chinooneka's study was significant to establish the facts. There is need to establish the factors that contribute to effective teaching. This provided further insight to the researcher to further examine the factors that contribute to effective teaching from it being looked at as the government duty but also a responsibility of parents and the community.

2.3.7 Suitability of Infrastructure in Upgraded Schools

School infrastructure consists of human capital and good learning environment which is categorized by researchers into human, social and physical capital (Crampton, 2009). Upgraded schools are in a crisis of crumbling public schools. It is a crisis that affects every community across the nation. Human capital refers to teachers and administrator that bring about skills and capabilities that make them able to act in new ways so as to make effective use of infrastructure. Their commitment to maintenance of school infrastructure contribute to improvement in student's achievement. The other important aspect here is Social Capital.

This is referred to as creation and maintenance of professional networks such as both formal and informal as well as collegial relations that support Local Districts (Sickle and Thomas, 2011). Professional networks are important as they make it possible for holistic learning to take place. Teachers from primary and secondary schools collaborate to provide a peaceful learning atmosphere for pupils. Guffey et al (2013) refer to social capital as school improvement strategy that supports students, parents, guardians, and school personnel learning and working together to create ever safe and more supportive environment to pupils.

Another aspect is Physical Capital, physical capital is the support of human and social capital. In a nutshell school infrastructure has been used more frequently to capture the whole range of capital needs in a single word. It creates the physical environment of the schools (Baltas, 2005). Barret et al (2019) is in agreement with the notion that key inputs to the education system include curricular, teachers and education infrastructure which help to improve the quality of holistic education in upgraded schools.

A study was conducted by Berner in to 2001 on the relationship between the improvements in school pupils' performance and availability of resources. It was noted that every \$10 increased resources per pupil within a school, the building condition improved by 0.29 on the scale of building condition. Berner concluded that this relationship existed because the school and the PTA were working together to improve the school infrastructure and pupil's performance. Chingos and West (2010) agrees with the idea that learning materials, text books and improvement in school buildings contribute to notable improvement in pupils' performance holistically.

In technical study by the Council of Educational Facilities in 1996, Planners International Lewis sought to establish a relationship between the condition of school facilities and student achievement consisting of elementary, middle and high schools. The study concluded that building conditions contributed significantly to student achievement in the Milwaukee public schools. The recommendations were that there was variation in student scores in mathematics and Science component.

Gibberd (2007) reveals that school infrastructure was used in scientific and industrial research for integrated performance model using the School Infrastructure framework as Performance Indicator System (SIPIS) created to identify the initial set of performance criteria in areas like infrastructure, programme and people. This was used to develop a

holistic picture of learning. There was improvement in School infrastructure as well as pupils' performance. This has led to the effective provision of basic services as well as support in the development of more sophisticated and effective education environments over time.

2.4 The World Perspective

The factors that influence holistic education in upgraded schools are similar worldwide. In the United Kingdom, transition from primary to Secondary school is acknowledged as a key issue in educational policy in Wales and elsewhere with aspects ranging from curriculum development to pastoral support for pupils. Infer (2006) states ' there is need for effective and appropriate arrangements for the transfer of pupils from primary to Secondary School as means of ensuring curriculum continuity and progression of pupils' education.' Hence need for educational reforms. In agreement, Galton et al, (2000) argued that despite the emphasis in the National curriculum, it has few positive effects on transfer arrangement between primary and secondary schools in England. It was noted that the intention of those who created the national curriculum was to ensure continuity between various key stages. Few teachers feel that the links are satisfactory. Adedokun et al (2017) conducted a study in learning space that support learner-centred instruction in a classroom setting and found that flexible learning space enhanced learning experience by supporting classroom arrangement as compared to traditional classrooms. Andamon and Woo (2019) were in agreement with the indoor environmental quality in learning space and as a factor that supports holistic learning. Indoor environmental quality in learning space provide a comfortable sitting arrangement in class according to the setting, that is the topic of discussion such as role play, group discussion, drama and many other different learning situations so as to facilitate holistic learning. This is in agreement with the finding of a study by Local Education Authority (LEA, 2013) on the relationship between expenditure and performance in schools. It was found that higher expenditure in education is appreciated with better examination results once poverty has been controlled or reduced.

2.5 The African Perspective

In Sub-Saharan Africa, the challenge of learning and quality improvement in education is addressed in relation to economic and social development. A large number of children remain out of school and less than half complete primary education. There are problems of access to education, quality of education learning of opportunities and attainment of learning outcomes which are unevenly spread between rural and urban areas, constituencies.

In Zimbabwe, a study by Mupa and Chinooneka in (2015) was conducted on effective teaching in schools. The findings were that teachers were not using variety of teaching methods, preparation of variety of media for use in teaching and learning, teachers have limited instructional materials, text books and syllabuses. Pupils learn in harsh and unconducive teaching and learning environment with low morale among teachers. There was low parental support in terms of extra materials. A qualitative study by used by Straus and Cabin, (1990) was conducted they found this as well and recommended that there was need for schools to employ qualified teachers for effective teaching.

Studies on the theme of governance and social accountability in Nigeria have launched corruption and the lack of government funds as contributing to ineffective learning. This makes it impossible to strengthen the features of the education system. Most of the education system in Africa are far from attaining the Dakar goals as deliberated at the World Education Forum in Dakar in the year 2000. Very few school leavers attain the knowledge of the curriculum. This hinders achieving the objectives of the economic development, social progress, peace and democracy, at the core of the new partnership for African Development (Vespoor, 2008). The research methodology was based on the praxis approach characterized by learning through action. Experiences were shared by participants in the reform process. The findings were that schools need to move towards Decentralization and school-based management. Carron and Chau (1996) are in agreement with improvement of school management skills such as decentralization and school based management. They emphasize that managers who are conversant with management practices would be more worthwhile partners of the government of Kenya in the implementation of policy. It was recommended that school managers undergo intensive leadership training on all aspects of school management for enhanced students' academic performance to be realized.

In Sub-Saharan Africa, this is uneven; other communities are unwilling to work together. Pinkster's research is very important to this study in that for holistic learning to occur in upgraded schools, the learner has to be equipped with skills and knowledge that contribute to the economic development of the country. However, Pinkster's research study is complex and leaves out environmental aspect of development as part of education in the Sub-Saharan Africa (Pinkster, 2014).

2.6 The Zambian Perspective

Zambia's holistic education and the factors that influence it can be detected in the realization of Zambia's 2030 vision of becoming a prosperous middle-income country. Through holistic learning, Zambia has undergone various educational policies which set the visions and strategies for educational development and mobilizing support aid cooperation for implementation of the strategies. The Education reforms of 1977, the Focus on learning, 1992 and the Educating our Future, 1996. The 1996 document pays attention to provision of infrastructure and equipment and provision of education for all Zambians so that they are able to pursue knowledge and skills. UNESCO, (2005) states that 'Education is crucial to human development.

A report by MOFND, in the SNDP, (2010) shows that between 2002 and 2009, a significant progress from grades one to seven was noted and the infrastructure development efforts acknowledged. This has resulted in increased enrolment from 2.9 million children in 2004 to 3.6million children in 2009. It has been observed that performance in Zambian schools is below the desirable minimum levels of 40%. Current achievement levels are at 37% while desired level is 70% as reported by the 2008, MOE Survey. There was national mean performance in Zambian languages. The analysis showed stagnation in pupil performances as compared to 2006 MOE survey where the mean performance in English, Mathematics and Zambian languages were 34.45% and 37.5%, 38.45% and 37.79% respectively. The SAMECQ results published in 2011 also reveals the poor performance. It is vital to improve learning in this achievement as efficiency indicator in this subsector.

In respect to secondary school education level upgraded schools from grade 1 to 12 have accorded the Zambian society the opportunity of access to education at secondary school. Achievements have been made by the government by increasingly enrolments from 162,019 pupils in 2005 to 257,100 pupils in 2009. In addition, completion rates at grade 12 has also improved from 17% in 2005 to 19% in 2009. Moreover, the pupil-teacher ratio increased from 22:1 to 20:1, the Net Enrollment Ratio (NER) increased and the Gender Parity Index rose from 0.81 to 0.87 from 2005 to 2009 (MOFNPM, SNDP, 2010) respectively.

However, there has been a low achievement for grade 9 level (MOE, 2006). This was done according to the number of school places available which limited progression beyond the basic education level. The focus has changed now from primary to secondary school progression. This has led to the increase in the number of school places at secondary school

level, hence according access to learners at secondary school level. It was recommended that upgraded schools need quality and efficiency of progression rate to high school.

The ZANEC study conducted by Hamusunga in 2012 on performance of the Zambian Education System recommended that there should be a budgetary increase allocated to education from current 18% to the SADC recommendation of 26% of the national budget. The study says the government should continue with the sustainable review of the curriculum, especially in survival skills and academic subjects. It recommended compulsory and free education. This research is related to factors which influence holistic learning in upgraded schools as it established the contents of various educational reforms. This may help to ascertain the implementation of holistic learning in upgraded schools pertaining to the performance and achievements of upgraded school. However, the ZANEC study does not go into detail to give evidence as to why these upgraded schools are not performing well that (is in relation to their learning environment, learning space in the classrooms, sanitation, science laboratories as factors contributing to poor learner performance).

2.7 Summary

The chapter presented some related Literature on the factors influencing holistic learning in upgraded schools. However, it was established that there was a gap in the sense that most scholars or researchers whose work is closely related to the study focused their research on the general role of holistic factors influencing secondary schools, attention on the relationship of school resources and performance staffing issues, wide range of teaching strategies, the learning environment, a sense of belonging and wellbeing, teaching quality achievements in relation to school buildings. However, the current study was different in that it was conducted to specifically establish factors influencing holistic learning in upgraded schools. Meaning attention was not on a single factor but on suitability of infrastructure, in terms of classrooms, laboratories and availability of instructional materials resources which are often ignored.

CHAPTER THREE METHODOLOGY

3.1 Overview

This chapter describes the research design and data collection methods used in the study. It will also discuss the population sample size sampling technique, data collection procedure, data analysis procedure, and ethical considerations.

3.2 Research Paradigm

This is a set of commonly held beliefs and assumptions within a research community about anthropological, epistemological concerns (Creswell, 2014). It constitutes a mental model that influences and structures how the members of the research community perceive their field of study. This study was guided by pragmatism as a research paradigm which is a world view of philosophy that arises out of actions, situations and consequences rather than antecedent conditions (as in positivism). There is a concern with applications, what works and solutions to problems. Habermas (2000) argues that pragmatism misuses ideas as a way of claiming the truth. However Silver (2020) says that an ideal theory can help to understand how to achieve a more perfect world, it sets a more concrete direction for the next concrete step every theory helps to solve human problems in the human society. The paradigm was chosen because it embraces qualitative and quantitative assumptions in a single study which were used during the study to arrive at the expected outcome.

3.3 Research Design

According to Bless and Achola (1988) a research design is a guide that provides a specific direction for procedure when conducting research in terms of arriving at the desired results, Kombo and Tromp (2006) identify a research design as a glue that holds all the elements in a research project together. The research design that was used in the study was descriptive survey. The study aimed at collecting views from respondents on their attitudes and opinions in relation to the factors influencing holistic learning in upgraded schools. According to Kombo and Tromp (2006), the major purpose of descriptive research is description of the state of affairs as they exist and also helps the researcher to report the findings. Kerlinger (1969) points out that descriptive studies often result in the formulation of important principles of knowledge and solution to significant problems. A descriptive design involves the collection of data measurement, classification analysis comprising and interpretation of data. Orodho (2003) also describes descriptive designs as a method of collecting information

by interviewing or administering a questionnaire to a sample of individuals. Allowing the researcher to use both qualitative and quantitative methods.

Thus, the use of descriptive design enabled the researcher to establish factors influencing holistic learning in upgraded school. The design was useful to getting the views or opinions from the teachers and Deputy Head teachers. In addition, the descriptive design was used to describe and explain the respondents' views and opinions in detail for the purpose of understanding the problem comprehensively.

3.4 Research Approach

A research approach is a plan and procedure to conduct a research (Cresswell 2014). There are three major approaches used namely quantitative, qualitative and mixed method. The approaches which were used in this study are qualitative and quantitative methods in order to arrive at the expected outcomes. Thus, the qualitative and quantitative method enabled the researcher to establish factors influencing holistic learning upgraded schools. The approaches were useful in getting the quantitative information from the teacher and qualitative information from Deputy Head teachers for the purpose of understanding the problem comprehensively.

3.5 Population of the Study

A population is a group of individual objects or items from which samples are taken for measurement (Kombo and Tromp, 2006). There are four upgraded schools in Mumuni zone, namely Lotus, ST Patricks, Mkandawire and Libala Stage III Schools. The target population were three schools considered as, A B and C for ethical reasons. The total population of the three upgraded schools was 203 teachers. The respondents for the study included the administrators (Deputy Head teachers and the teachers).

3.6 Sample Size

According to White (2008) a sample is defined as a group of subjects selected from a larger population. The schools chosen were considered as A B and C for ethical reasons. The size of this study was 53 respondents broken down as 50 teachers and 3 Deputy Headteachers of the sample population of 15 were male and 35 were female representing 30% and 70% respectively.

3.7 Sampling Techniques

Sampling technique is defined by Scott and Wild (1986) as the specific process by which the entities of the sample have been selected. This can be by probability and nonprobability methods. According to Salant, Dillman and Don et al (2005) probability sampling is where random selection of members is involved with each one having an equal chance of being selected. They also define non-probability sampling as a sampling technique in which the samples are selected based on the subjective judgment of the researcher rather than random selection. In this study, both probability and nonprobability sampling techniques were employed. This was so to ensure that there is objectivity in the collection of information (Kombo and Tromp, 2006).

Under non-probability sampling, purposive sampling was employed as it is a method of sampling which allows the researcher to purposively target a group of people believed to have reliable information for this study. In this case, the three Deputy Headteachers were purposively selected as a group of respondents that would provide reliable information as administrators of the schools. Kombo and Tromp (2006) adds that the power of purposive sampling lies in selecting rich information, in-depth analysis of the study and the fact that is a relevant method that can be used to select samples when a researcher is dealing with sensitive issues such as sanitation, availability of resources of effectiveness of the workforce. On the other hand, under probability sampling, the simple random sampling method was used to select teachers. Simple random sampling is defined by Kombo and Tromp (2006) as a sampling technique where every item in the population has an even chance and likelihood of being selected. This was done to allow teachers to have equal chance of participating in the study. The total population was made up of 203 respondents (3 were purposively scrutinised) with the sample size of 50 teachers and 3 administrators. A ruffle was drawn where 200 targeted respondents (teachers) were represented with pieces of paper. The 50 targeted papers were marked to represent respondents. 150 were not marked and put in a box together with the 50 marked papers. 200 papers were shuffled every time a teacher was to pick a piece. Consequently, 50 marked papers were picked by teachers and the rest were not picked, hence the 50 were picked as would be respondents for the study. (the sample size randomly picked)

3.8 Data Collection Methods and Instruments

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes (Whitney, Lind and Wahl, et al 1998). According to

Cresswell (2003) research instruments are used to collect primary data. In descriptive research, data collection methods include, observations, interviews group discussions, questionnaires and content analysis (Kothari, 2004). In this study, data was collected using interviews guides and questionnaires. In depth interview guides were conducted with 3 Deputy Headteachers whereas questionnaires were administered to the 50 teachers. In depth interview guided were conducted in order to access sensitive information such as sanitation issues. Kothari (2004) defines an interview method of collecting information through oral verbal questions and oral verbal responses. This means that the method helps the researcher to get deep meaning through verbal as well as non-verbal expressions.

On the other hand, a questionnaire is a research instrument consisting of a number of printed or typed questions in a defined order on a form. According to Kothari (2004), the advantage of using a questionnaire is that it is free from bias of the interviewer. By looking at how sensitive the study is, the questionnaires helped to avoid the weaknesses that accompanies the interviews as these were given to make the respondent more comfortable when providing responses.

3.9 Data Collection Procedure

Data collection is defined as the procedure of collecting, measuring and analysing accurate insights for research using standard validated techniques (Xia and Gong, 2015). To collect data, relevant permissions were obtained from the school administrators. At the first level questionnaires were distributed to the fifty teachers and the appointment with the respondents was done after which interviews were conducted with the Deputy Head Teachers. The data collection process took up to one month of non-continuous days.

3.10 Data Analysis

Data analysis is a process of inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, informing conclusions and supporting decision-making (Xia and Gong, 2015). According to Kombo and Tromp (2006) data analysis is significant as it helps the researcher to clearly show the results and findings.

Quantitative data was analysed using descriptive and inferential statistics. Data was coded and analysed using an analytical tool called Statistical Package for Social Sciences (SPSS) Version 21. The Qualitative data was analysed using thematic approach analysis based on the

variables from the objectives. Various tables and charts were produced to present descriptive statistics to ease the analysis and evaluation of the data collected.

3.11 Summary

This chapter outlined the methodology that was applied to the study with the related justifications. The descriptive survey design was used with mixed methods. The study population involved four upgraded schools in Mumuni Zone from whom a sample of 53 respondents was taken involving Deputy Head teachers and the teachers selected by the purposive and simple random methods, respectively. The chapter describes how the structured questionnaires were used for data collection and the related data collection procedure. The later part of the chapter details how descriptive and inferential statistics were employed in data analysis with the aid of SPSS Version 21.



CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This chapter is the presentation and analysis of the findings in line with the objectives. It outlines the presentation of demographic characteristics of the respondents and analysis of the findings using descriptives for demographic data for the components involving gender, age, years in service, teaching experience, qualification and confirmation status for each of the study objectives as: Factors which influence holistic learning for upgraded schools, Adequacy of instructional materials in upgraded schools and Suitability of the Infrastructure in Upgraded Schools for Holistic Learning.

After collection, research data from the questionnaires was summarized on a computer spreadsheet in Microsoft Excel. The data was coded and entered in the Statistical Package for Social Sciences (SPSS) Version 21, a computer program for data analysis. SPSS was selected for this study because it is most suitable for analysing data that has been derived using a Likert Scale. Qualitative data from the interviews was analysed in themes according to the study variables and then correlated with the statistical data. The compiled data was presented in tables with narrations to indicate the findings on each variable.

Primary data analysis was done using descriptive statistics with means, frequencies and percentages. This involved deriving the statistics from the questionnaires and indicating the statistical implications to the study. Means were analysed and interpreted according to the criteria presented in Table 9. According to Schutt and O'Neil, (2013) the mean (average) is the most common measure of central tendency and refers to the average value of a group of numbers. This was used to obtain the most representative response for the entire sample of teachers for each variable.

The later part of the chapter is a regression analysis of the dependent variable (holistic learning occurring at the school) and the predictors (infrastructure in upgraded schools, teaching methods, effective curriculum, instructional materials, conducive learning space, pastoral care and activities to educate the whole personality).

4.2 Demographic Characteristics of the Respondents

The demographic characteristics of the respondents were analysed using descriptive statistics, showing frequencies (number of respondents) and percentages (proportion of the sample). Data was collected from 50 teachers and 3 deputy head teachers, representing 100% response rate. The variables were gender, age, years in service, teaching experience, qualification and confirmation status.

In terms of gender, 36 (representing 72.0%) were female, 14 (representing 28.0%) were male. This information is illustrated using table 2 below;

Table 2. Gender of Teachers

Gender				
Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	36	72.0	72.0	72.0
Male	14	28.0	28.0	100.0
Total	50	100.0	100.0	

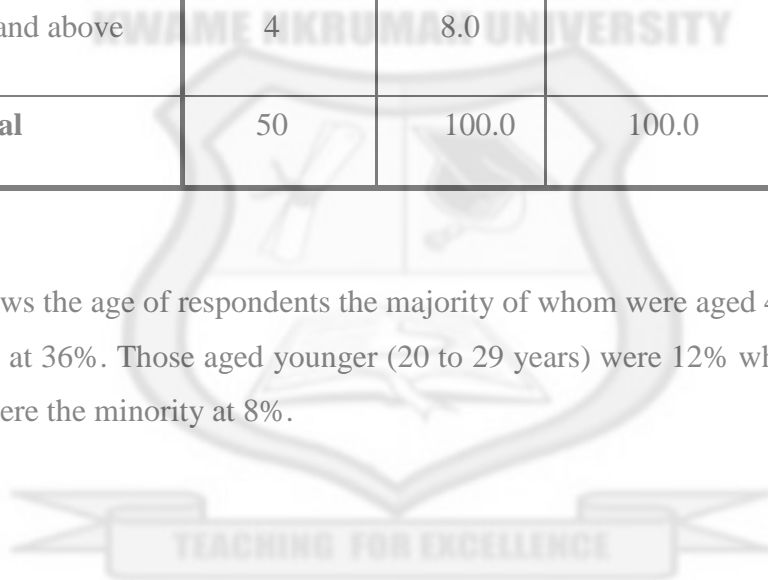
In Table 2 the gender of the teachers is shown in terms of female and male. The study had a majority of female respondents at 72% while male respondents were the minority at 28%.

In terms of age of teachers, age range 20-29 had frequency 6, percent 12.0 %, valid percent 12.0 and cumulative percent 12.0. Age range 30-39 had frequency 18, percent 36.0, valid percent 36.0 and cumulative percent 48.0. Age range 40-49 had frequency 22, percent 44.0, valid percent 8.0 and cumulative percent 92.0. Age range 50 and above had frequency 4, percent 8.0. This information is illustrated using table 3.

Table 3. Age of Teachers

Age				
Age Range	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-29 years	6	12.0	12.0	12.0
30-39 years	18	36.0	36.0	48.0
40-49 years	22	44.0	8.0	92.0
50 and above	4	8.0		
Total	50	100.0	100.0	100.0

Table 3. Shows the age of respondents the majority of whom were aged 40 to 49 years at 44% and 30 to 39 at 36%. Those aged younger (20 to 29 years) were 12% while the older aged 50 and above were the minority at 8%.



In terms of years of service, 1-5 years had frequency 5, percent 10.0 %, valid percent 10.0 and cumulative percent 10.0. 6-10 years had frequency 19, percent 38.0, valid percent 38.0 and cumulative percent 48.0. 11-15 had frequency 3, percent 6.0, valid percent 6.0 and cumulative percent 54.0. 16 and 16-20 years had frequency 23, percent 46, valid percent 46.9 and cumulative percent 100.0. This information is illustrated using table 4 below.

Table 4. Respondents' Years of Service

Years of Service					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	5	10.0	10.0	10.0
	6-10 years	19	38.0	38.0	48.0
	11-15 years	3	6.0	6.0	54.0
	16-20 years	23	46.0	46.0	100.0
	Total	50	100.0	100.0	100.0

The years of service attained by the respondents were found as shown in Table 4. Most of the respondents had been in service for 16 to 20 years (46%) and 6 to 10 years (38%). Fewer had been in service for 1 to 5 years (10%) while the minority were 11 to 15 years (6%).

In terms of respondent's previous teaching experience at upgraded schools, valid yes had frequency 13, percent 26.0 %, valid percent 26.0 and cumulative percent 26.0, while valid No had frequency 37, percent 74.0, valid percent 74.0 and cumulative percent 100.0. This information is illustrated using table 5 below.

Table 5. Respondents' Previous Teaching at Upgraded School

Previous Teaching at Upgraded School					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	13	26.0	26.0	26.0
	Yes	37	74.0	74.0	100.0
Total		50	100.00	100.0	

Table 5. Presents the teachers' previous teaching at upgraded schools. There were 74% who acknowledged having previously taught at an upgraded school while 26% had not.

In terms of teachers qualification, valid diploma had frequency 13, percent 24.0, valid percent 24.0 and cumulative percent 24.0. valid degree had , percent 74.0, valid percent 74.0 and cumulative percent 98.0. Finally post graduate had frequency 37, percent 2.0, valid percent 2.0. This information is illustrated using table 6 below.

Table 6. Teachers' Qualifications

Qualification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	13	24.0	24.0	24.0
	Degree		74.0	74.0	98.0
	Post Graduate	37	2.0	2.0	100.0
Total		50	100.0	100.0	

Table 6. (Teachers' qualifications) shows that most of the respondents in the study had degrees (74%). Others had diplomas (24%) while only one had post graduate qualification (2%)

In terms of teachers confirmation, valid No had frequency 1, percent 2.0 %, valid percent 2.0 and cumulative percent 2.0, while valid yes had frequency 49, percent 98.0, valid percent 98.0 and cumulative percent 100.0. This information is illustrated using table 7 below;

Table 7. Teachers' Confirmation Status

Confirmation Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	2.0	2.0	2.0
	Yes	49	98.0	98.0	100.0
Total		50	100.0	100.0	

Table 7. Shows that all teachers except one were confirmed. That is 98% confirmed and 2.0% not confirmed.

In terms of occurrence of holistic learning, strongly disagree had frequency 15, percent 30.0 %, valid percent 30.0 and cumulative percent 30.0. disagree had frequency 17, percent 34.0, valid percent 34.0 and cumulative percent 64.0. neutral had frequency 5, percent 10.0, valid percent 10.0 and cumulative percent 74.0. Agree had frequency 11, percent 22.0, valid percent 22.0 and cumulative percent 96.0. Strongly agree had frequency of 2, percent 4.0, valid percent 4.0. This information is illustrated using table 8;

Table 8. Occurrence of Holistic Learning

Occurrence of Holistic Learning					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	30.0	30.0	30.0
	Disagree	17	34.0	34.0	64.0
	Neutral	5	10.0	10.0	74.0
	Agree	11	22.0	22.0	96.0
	Strongly Agree	2	4.0	4.0	
	Total		50	100.0	100.0

According to Table 8, up to 64% of the teachers disputed the occurrence of holistic education at their schools (30% strongly disagreed and 34% disagreed). Those who agreed were 22%; strongly agreed were 4%, while 10% were neutral.

Interpretation of means and standard deviation

In terms of Interpretation of means and standard deviations, strongly disagree had the range of 1 to 1.8, interval 0.8. Disagree had the range of 1.81 to 2.6, range 0.8. Neutral had the range of 2.61 to 3.4, interval 0.8. Agree had the range of 3.41 to 4.2, interval 0.8. Strongly agree had the range of 4.21 to 5, interval 0.8. This information is illustrated using table 9 below;

Table 9. Interpretation of means and standard deviations

Interpretation of means			
RANGE		Interval	Interpretation
From	To		
1	1.8	0.8	Strongly disagree
1.81	2.6	0.8	Disagree
2.61	3.4	0.8	Neutral
3.41	4.2	0.8	Agree
4.21	5	0.8	Strongly Agree

4.3 Factors which Influence Holistic Learning for Upgraded Schools

The first research objective was to establish the factors which influence holistic learning for upgraded schools. The teachers were asked to state their levels of agreement with the levels of influence arising from learning space, effectiveness of the curriculum, activities to educate the whole child, pastoral care and teaching methods.

In terms of factors which influence holistic learning for upgraded schools. Conducive learning space had a valid number of 50, missing, 0, mean 2.5200 and standard deviation of 1.61927. Effective curriculum had a valid number of 50, missing, 0, mean 4.1800 and standard deviation of 1.25666. Activities to educate the whole child had a valid number of 50, missing, 0, mean 2.4800 and standard deviation of 1.16479. Pastoral care had a valid number of 50, missing, 0, mean 2.0600 and standard deviation of 1.39108. Teaching methods had a valid number of 50, missing, 0, mean 2.9000 and standard deviation of 1.43214. This information is illustrated using table 10 below;

Table 10. Factors which influence holistic learning for upgraded schools

Statistics						
		Conducive learning space	Effective curriculum	Activities to educate the whole child	Pastoral care	Teaching methods
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Mean		2.5200	4.1800	2.4800	2.0600	2.9000
Std. Deviation		1.61927	1.25666	1.16479	1.39108	1.43214

Table 10 shows the means and standard deviations of the factors which were assessed as influencing holistic learning among upgraded schools. Effective curriculum was the only one factor which positively influenced holistic learning (mean 4.1800). The respondents were indifferent on teaching methods as an influential factor for holistic learning among upgraded schools (mean 2.9000). The respondents did not consider other factors as influential at fostering holistic learning among upgraded schools. In this regard, the learning space was not conducive (mean 2.5200); the school activities did not educate the whole child (mean 2.4800) and there was inadequate pastoral care (mean 2.0600).

4.4 Adequacy of instructional materials in upgraded schools

The second research objective was to establish if the selected upgraded schools have adequate instructional materials. On a 3-Point Likert Scale, teachers were asked to state how adequately their schools were supplied with instructional materials. These included textbooks, teaching guides, models, chalk, stationery, posters/charts, supplementary books, past papers, internet, projectors, computers, desks, tables and chairs. Basing on the 3-Point Likert Scale set of questions, means were derived using an interval of 0.67, the lowest being 1 and the highest 3. Thus, means of 1.00 to 1.67 (unavailable); means of 1.68 to 2.33 (available but inadequate) and means of 2.34 to 3.00 (available and adequate).

The valid number of instructional materials for all was 50 and none was missing. The instruction materials had the mean of text books 1.960, teaching guides 1.420, models 1.180, chalk 2.900, stationary 2.460, posters and charts 2.220, supplementary books/materials 2.000, past papers 1.700, internet 1.180, projectors 1.260, computers 2.080, desks 2.260, tables 1.500, and chairs 2.160. The standard deviation of text books 0.5330, teaching guides 0.6728 models 0.4375, chalk 0.3030, stationary 0.5035, posters and charts 0.6788, supplementary books/materials 0.5345, past papers 0.6145, internet 0.3881, projectors 0.4431, computers 0.2740, desks 0.4431, tables 0.5803, chairs 0.3703. This information is illustrated using table 11;

Table 11. Adequacy of Instructional Materials in Upgraded Schools

	Textbooks	Teaching guide	Models	Chalk	Stationery	Posters & charts	Supplementary books/materials
N Valid	50	50	50	50	50	50	50
Missing	0	0	0	0	0	0	0
Mean	1.960	1.420	1.180	2.900	2.460	2.220	2.000
Std. Deviation	.5330	.6728	.4375	.3030	.5035	.6788	.5345
	Past papers	Internet	Projectors	Computers	Desks	Tables	Chairs
N Valid	50	50	50	50	50	50	50
Missing	0	0	0	0	0	0	0
Mean	1.700	1.180	1.260	2.080	2.260	1.500	2.160
Std. Deviation	.6145	.3881	.4431	.2740	.4431	.5803	.3703

In terms of adequacy of instructional materials at the upgraded schools, Table 11 shows that the most adequate were chalk (mean 2.900) and stationery (mean 2.460). Materials which were available but inadequate were: desks (mean 2.260), posters and charts (mean 2.220), chairs (mean 2.160), computers (mean 2.080), supplementary materials and books (mean

2.000), text books (mean 1.960) and past papers (mean 1.700). Some of the materials which were not available were tables (mean 1.500), teaching guides (mean 1.420), projectors (mean 1.260), models (mean 1.180) and internet (mean 1.180).

4.5 Suitability of the Infrastructure in Upgraded Schools for Holistic Learning

The third research objective was to assess the suitability of the infrastructure for holistic learning. The teachers were asked to indicate how they found various infrastructure items suitable for holistic learning. Those included were classrooms, office blocks, school halls, science laboratories, play grounds, specialised rooms, libraries, tuckshops, utility vehicles, security, electricity, water, sanitation and trash bins.

The valid number Infrastructure and utilities in Upgraded Schools for all was 50 and none was missing. The mean of classrooms 1.960, office block 3.700, school hall 1.540, science lab 2.060, play grounds 3.080, special rooms 2.100, library 1.460, tuck shop 3.100, utility vehicle 3.080, electricity 3.840, water 3.800, sanitation 3.040, and trash bins 3.600. the standard deviation were; classrooms 1.2610, office block 1.0152, school hall 1.2157, science lab 0.8184, play grounds 1.0069, special rooms 0.7071, library 1.0539, tuck shop 1.0546, utility vehicle 0.9864, electricity 1.3456, water 0.8330, sanitation 0.6376, and trash bins 1.2778 . This information is illustrated using table 12 below.

Table 12. Suitability of the Infrastructure and utilities in Upgraded Schools

	Class-rooms	Office Block	School hall	Science Lab	Play grounds	Special Rooms	Library
N	50	50	50	50	50	50	50
Missing	0	0	0	0	0	0	0
Mean	1.960	3.700	1.540	2.060	3.080	2.100	1.460
Std. Deviation	1.2610	1.0152	1.2157	.8184	1.0069	.7071	1.0539
	Tuck shop	Utility vehicle	Security	Electricity	Water	Sanitation	Trash bins
N	50	50	50	50	50	50	50
Missing	0	0	0	0	0	0	0
Mean	3.100	3.080	1.380	3.840	3.800	3.040	3.600
Std. Deviation	1.0546	.9864	.9452	1.3456	.8330	.6376	1.2778

Table 12 shows the statistics concerning the suitability of infrastructure and utilities for providing holistic education at upgraded secondary schools. The infrastructure items which were found most suitable for provision of holistic education in upgraded high schools had

means of 3.41 to 4.20. These were administration/office blocks with mean of 3.700. With means of 2.61 to 3.4, the study found that the respondents were indifferent regarding the suitability of playgrounds (mean 3.080) and tuckshops (mean 3.100). With means between 1.000 and 1.800, the aspects of infrastructure were not suited for providing holistic education at upgraded secondary schools. This included: libraries (mean 1.460) and school halls (mean 1.540). Other aspects of infrastructure inadequacy with means of 1.810 to 2.600 were classroom blocks (mean 1.960); science laboratories (mean 2.060) and specialised rooms (mean 2.100).

Regarding utility the suitable aspects were electricity (mean 3.840); water (mean 3.800) and trash bins (mean 3.600). The respondents were indifferent regarding utility vehicles (mean 3.080) and sanitation facilities (mean 3.040). The aspect of security (mean 1.380) was considered unsuitable for providing holistic education at secondary school level. This was due to its low mean.

The teachers were asked to indicate their overall perception of the suitability of the school infrastructure and utilities.

Overall Suitability of Infrastructure and Utilities

In terms of overall Suitability of Infrastructure and Utilities, strongly disagree had frequency 13, percent 26, valid percent 26, and cumulative percent 26. Disagree had frequency 18, percent 26, valid percent 36, cumulative percent 62. Neutral had frequency 9, percent 18, valid percent 18, and cumulative percent 80. Agree had frequency 7, percent 14, valid percent 14, and cumulative percent 94. Strongly agree had frequency 3, percent 6, valid percent 6, and cumulative percent 100. The overall Suitability of Infrastructure and Utilities had a valid number of 50, missing 0, mean 2.380 and standard deviation of 1.1933. This information is illustrated using table 13 below.

Table 13. Overall Suitability of Infrastructure and Utilities

Overall Suitability of infrastructure and utilities					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	13	26	26	26
	Disagree	18	36	36	62
	Neutral	9	18	18	80
	Agree	7	14	14	94
	Strongly Agree	3	6	6	100
	Total	50	100	100	
Valid	50				
Missing	0				
Mean	2.380				
Std. Deviation	1.1933				

Table 13 shows that the overall suitability of infrastructure and utilities in the upgraded secondary schools was low in as far as it was to enhance holistic learning (mean 2.380). Among the respondents, the majority (with a cumulative percentage of 62%) disagreed. Those who were neutral made up 18% while up to 20% agreed (14% agreed and 6% strongly agreed).

4.6 Regression Analysis and Summary of Findings

The variables which added statistically significantly to the prediction with $p < .05$ were effective curriculum (.001) and availability of instructional materials (.008). The variables which did not contribute significantly to holistic learning were infrastructure in upgraded schools, teaching methods, learning space, pastoral care and activities to educate the whole personality.

Table 14. Regression Analysis

Model	Coefficients ^a				Sig.
	Unstandardized Coefficients		Standardized Coefficients	t	
	B	Std. Error	Beta		
1 (Constant)	1.359	1.183		1.149	.257
Conductive Learning Space (IV1)	.137	.119	.176	1.152	.256
Effective Curriculum (IV2)	.494	.141	.606	3.500	.001
Activities to Educate Whole Personality (IV3)	.145	.178	.134	.819	.418
Pastoral Care (IV4)	.037	.144	.041	.259	.797
Teaching Methods (IV5)	-.063	.134	-.072	-.472	.640
Availability of Instructional Materials (IV6)	-.373	.138	-.465	-2.691	.008
Infrastructure in Upgraded Schools (IV7)	.165	.152	.167	1.083	.285

a. Dependent Variable: Holistic learning occurring at the school (DV1)

b. Predictors: (Constant), Infrastructure in Upgraded Schools (IV7), Teaching Methods (IV5), Effective Curriculum (IV2), Availability of Instructional Materials (IV6), Conductive Learning Space (IV1), Pastoral Care (IV4), Activities to Educate the Whole Personality (IV3)

The table above shows that two variables were statistically significant. The variables which added statistically significantly to the prediction with $p < .05$ were effective curriculum (.001) and availability of instructional materials (.008). The variables which did not contribute significantly to holistic learning were infrastructure in upgraded schools, teaching methods, learning space, pastoral care and activities to educate the whole personality.

The analysis by descriptive and inferential statistics reveals that the schools in the study had inadequate learning space, activities to educate the whole personality and had poor pastoral care. The teaching methods were not varied; and infrastructure was also not adequate. The variables that were found to have significance for holistic learning to occur were the curriculum effectiveness and availability of instructional materials.

4.7 Summary

The chapter presented the findings and the analysis of the findings in line with the research objectives. The chapter first provides the descriptives for demographic data of the respondents involving gender, age, years in service, teaching experience, qualification and confirmation status. The occurrence of holistic learning was considered significant at all schools. The factors influencing holistic learning were found to be hinged around effective curriculum. Adequacy of instructional materials was significant for chalk and stationery, apart from furniture and books. Suitability of infrastructure was significant for administration blocks while for utilities it was significant for electricity, water, and trash bins. The overall infrastructure was not suitable for holistic learning. By inferential statistics, only effective curriculum and availability of instructional materials contributed significantly to holistic learning among upgraded schools in Mumuni Zone, Lusaka.



CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter is the discussion of findings based on the previous chapter. The discussion incorporates the relation of the study to previous studies and its implications to research and practice.

In order to discuss the findings of the study elaborately, the objectives of the study will be used systematically, the first objective is on factors which influence holistic learning in upgraded schools followed by adequacy of instructional materials and suitability of infrastructure for holistic learning.

5.2 Factors which Influence Holistic Learning

The first research objective was to establish the factors which influence holistic learning for upgraded schools. The study revealed that holistic education was not significant at the studied upgraded schools. Despite the curriculum having a positive influence on holistic learning, teaching methods, learning space and pastoral care were not significant. The education of the whole child was therefore not attainable at these institutions. Sirous (2012) concluded that holistic education was a wider set of factors, encompassing a wide range of philosophical orientations and pedagogical practices. Its focus is on "wholeness," and it attempts to avoid excluding any significant aspects of the human experience. It is an eclectic and inclusive movement whose main characteristic is the idea that educational experiences foster a less materialistic and a more spiritual worldview along with more dynamic and holistic views of reality. It also proposes that educational experience promote a more balanced development of the individual and cultivate the relationship among the different aspects of the individual (intellectual, physical, spiritual, emotional, social and Aesthetic), as well as the relationships between the individual and other people, the individual and natural environment, the inner-self of students and external world, emotion and reason, different discipline of knowledge and different form of knowing. Holistic education is concerned with life experience, not with narrowly defined "basic skills". This study established that there are variations in the way the holistic education is conceived.

It is evident that there are variations in the way holistic education is conceived. While this study established that holistic education was not attained at the upgraded schools, a study by Lee, Hong and Niemi (2014) revealed that holistic education focuses on two key dimensions: transformative learning and community engagement. Indications of transformative learning were observed through the unstructured play activities that students engaged in. For community engagement, they examined the imperatives that underpin community engagement initiatives that students were exposed to. A sociological explanation of this account discusses the context that shapes approaches to holistic learning, and how changes in schooling approaches mirror-changing educational landscapes. Orodho, (2016) also found that the availability, relevance and adequacy of infrastructural facilities contribute to students' achievement while unattractive school buildings, crowded classrooms, non-availability of playgrounds and flowerbeds and surroundings that have no aesthetic beauty can contribute to poor performance. He also reiterated the provision of adequate facilities for effective teaching and learning to take place.

This study infers from the literature that schools' facilities have a positive relationship with school effectiveness. Indeed, this study and other recent studies have shown that students' performance is enhanced in schools with better physical learning environments. The empirical argument for investing in learning environment is strong. Furthermore, although causal evidence on this topic is scarce, there is a growing number of studies that indicate that investments in quality school infrastructure are strongly associated with improved learning outcomes even after controlling for students' socioeconomic background and other relevant covariates. New technologies and emerging pedagogical practices have created new requirements for educational buildings. As a result, new approaches to building learning environments must be developed that both create better spaces for children and increase the efficiency of investments in educational infrastructure.

5.3 Adequacy of Instructional Materials

The second research objective was to establish if the selected upgraded schools had adequate instructional materials. The study found that only consumable items were available in the upgraded schools. That is, chalk and other stationery. Within this category books, text books, past papers, posters and charts were inadequate while teaching guides were not available. In terms of equipment and furniture desks, chairs, tables, computers and internet facilities were

inadequate in the upgraded schools. Projectors and models were not available. The study concludes that upgraded secondary schools did not have adequate instructional materials.

The importance of learning materials for holistic education has been recognised by previous scholars. Hansen and Bundsgaard (2011) identified three important factors as being the learning potential, that is, the affordances and challenges of the learning material, and the competences supposedly supported when working with the material. Secondly, the actualised learning potential, that is, the potential for learning when the design for learning is enacted by integrating the learning material in a situation in a given context. Thirdly, the actual learning, that is, how the participants actually develop their competences through working with the learning material or enacting a design for learning.

Unlike the current study, Gidley (2010) established that school generated educational materials were not enough for achieving holistic education at school level. The study findings showed that the students valued social equality, diversity, tolerance and community as important contributions to a peaceful, communicative world. Many of the students' preferred futures also paid attention to the needs of the environment, reflecting not just sustainable development but views that were closer to the ecophilosophers who argue for a re-enchantment of the world. In conclusion, there is an exploration of theoretical and practical links between the findings and recent speculations of educational futurists in regard to educating young people for the 21st century. This view was sustained by Edminston (2018) who reports that material for holistic education should not be limited to what the formal curriculum provides or recommends. Knowledge was a wider phenomenon and incorporates principles of spirituality, wholeness, and interconnectedness along with principles of freedom, autonomy, and democracy. Holistic education theorists assume an integration of what most progressive and democratic movements in education have proposed should be kept separate, namely, spirituality and humanistic ideals.

The importance of instructional materials towards holistic education was stressed by Reynolds, (2012) who established that teachers were more effective if they recognized that students were unique individuals and there are important factors to be considered in constructing an effective instructional material. Here are the factors; diverse user interests, abilities, backgrounds, cultures, languages, and maturity levels. Materials intended for student use should be appropriate for the subject area and for the age, social development, ability levels, special needs, and learning styles of students served by the collection. It was

also found that teachers at all levels utilize a variety of instructional materials such as textbooks, presentations and handouts to enhance the quality of their lessons. The quality of those materials directly impacts the quality of teaching. Knowing how to find the best instructional materials is a valuable skill for a teacher to have. The importance of Instructional Materials or Educational resources is to improve students' knowledge, abilities, and skills, to monitor their assimilation of information, and to contribute to their overall development and upbringing. It also clarifies important concepts to arouse and sustain student's interests, give all students in a class the opportunity to share experiences necessary for new learning, help make learning more permanent.

Reynolds, (2012) identifies five aspects of educational materials that are essential for achieving holistic education. Content aligns with curriculum and standards, and is current, valid and reliable, with real world examples. Design to meet the interest of the individual learners from various skills levels. Enhances conceptual understanding and engages higher order thinking skills. Free from bias. Equity and Accessibility recognises that materials are durable, easily stored, transported and are universally accessible. Materials are easily updated and are adaptable and customizable to match the resources of the school. Appropriateness means that materials are appropriate for the subject matter, and also appropriate for the learner's capacity or levels of learning. Presentation means comprehensiveness of student and teacher resources; alignment of instructional components; organization of instructional materials; readability of instructional materials; pacing of content; ease of use and durability of materials. Under learning motivational strategies; teaching a few big ideas; explicit instruction; guidance and support; active participation of students; targeted instructional strategies; targeted assessment strategies. Cost requires that materials used for teaching should not be expensive, as long as it is captivating and catches the attention of the students then it is an effective instructional material.

The findings of this study and other literature focus on some aspect of learning materials, such as its intentions, its use, and the learning outcome. There is consistent agreement that learning materials are essential for holistic education to occur. Learning materials can be of various types. Functional learning materials (tools) are characterised by their facilitation of learning and teaching: including black and white boards, computer applications, projectors, and mobile phones. Semantic learning materials (texts) characterised by their meaning as constituted by signs and semantic references: including film, literature, charts, pictures, paintings and other texts and objects with references to specific domains of experience.

“Didacticized” learning materials characterised by combining tools and texts and facilitating learning and teaching: including textbooks, online teaching materials, and educational games. The Materials to be selected should support, enrich and extend the school’s curriculum and to encourage informational, educational and recreational reading, viewing and/or listening. Instructional materials can support student learning and increase student success in a holistic manner. Ideally, the teaching materials will be tailored to the content in which they're being used, to the students in whose class they are being used, and the teacher. Teaching materials come in many shapes and sizes, but they all have in common the ability to support student learning and contribute to holistic learning.

5.4 Suitability of the Infrastructure for Holistic Learning

The third research objective was to assess the suitability of the infrastructure for holistic learning. The need to consider infrastructure as an ingredient for holistic education was stressed by Baltas, (2005): “Good infrastructure is truly at the base of quality education” The infrastructure items which were found suitable for upgraded schools were only the administration and office blocks. There was no evidence to suggest adequacy in terms of playgrounds and tuckshops. This was mainly because not all schools in the study had these facilities. The items of infrastructure which were found unsuitable for upgraded schools were libraries, school halls, classroom blocks, science laboratories and specialized rooms. In terms of utilities the schools had suitable electricity connections, water and trash bins. Not all schools had utility vehicles while security was considered unsuitable. The study concludes that upgraded schools did not have suitable infrastructure to provide holistic learning.

This finding reflects the study by Ndirangu (2016) who concluded that the use of academic and non-academic dynamics such as physical facilities were viable and timely ingredients for sustainable and holistic educational development. It was thus recommended that educationists and school leaders and managers should adopt a well-balanced combinations of academic and non-academic variables such as physical facilities and environmental management in designing holistic education to replace the traditional use of only academic excellence.

The finding that infrastructure is cardinal for holistic education was similarly revealed in a study by Waweru, et al, (2016). The test of hypothesis revealed a significant relationship between physical facilities and holistic education. The regression analysis corroborated by qualitative data from interviews and observations led to the conclusion that the use of academic and non-academic dynamics such as physical facilities were viable and timely

ingredients for sustainable and holistic educational development. It was thus recommended that educationists and school leaders and managers should adopt a well-balanced combination of academic and non-academic variables such as physical facilities and environmental management in designing holistic education to replace the traditional use of only academic excellence.

Unlike the current study's findings on the aspect of infrastructure on learners' holistic learning in upgraded public schools, Keeves (2008) found that the type of school, classified as public or private did not make any difference on students' holistic education. However, Ajayi (2006), found out that school type made a difference in student academic performance. In addition, Philius and Wanjobi (2011) reiterated that the type of schools (single sex or mixed, private or public) has effect on the provision of holistic education.

This study and other previous study have evidence that the challenge facing teaching in Zambia and most African countries which also directly relates dynamics of holistic education is availability from this study and other previous studies that the challenge facing teaching in Zambia and most African countries and which also directly relates dynamics of holistic education is availability, adequacy and appropriateness of physical facilities to be used to facilitate holistic education necessary for the learner. A recent study by Bizimana and Orodho (2014) in Rwanda indicates that lack of adequate and appropriate physical facilities in the context of the heavy workload of teachers can constrain smooth interaction between the learner and learning process and threaten holistic educational development.

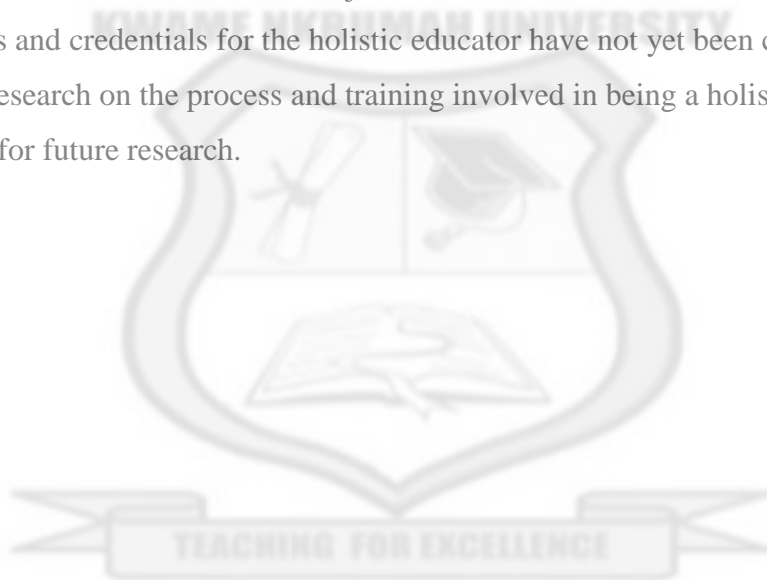
Basing on statistical analysis, the dependent variable holistic learning was not significantly influenced by the independent variables of infrastructure, learning space, pastoral care and activities to educate the whole person. The two factors that had significance for holistic learning were effective curriculum and instructional materials. It is therefore concluded that upgraded schools have not achieved a significant level of holistic learning.

This study concludes in harmony with previous researchers that achieving holistic education is more of a goal than a realised experience. Indeed, the role of the holistic teacher is to nurture and support the child's whole developmental needs of mind, body, and spirit; it is believed that instructors who can keep their work fresh, current, alive, and relevant to students will be of great value (Luvmour, 2001). While literature exists on the objectives of the holistic educator, best practices pertaining to requirements and credentials for the holistic

educator have not yet been clearly outlined. Additional research on the process and training involved in being a holistic educator is an opportunity for future research.

5.5 Summary

This chapter was a detailed discussion of the study findings in relation to the research, practice and previous studies. The discussion shows that the findings of the study are valid for the area represented although variations with previous studies were evident. This study concludes in harmony with previous researchers that achieving holistic education is more of a goal than a realized experience. Indeed, the role of holistic teacher is to nurture and support the child's whole developmental needs of mind, body and spirit, it is believed that instructors who can keep their work fresh, current, alive and relevant to students will be of great value (Luvmour, 2001). While Literature exist on the objectives of holistic educator, best practices pertaining to requirements and credentials for the holistic educator have not yet been clearly outlined. Additional research on the process and training involved in being a holistic educator is an opportunity for future research.



CHAPTER SIX CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter is the conclusion and recommendations of findings. The first parts are the conclusions made, then the recommendations and lastly the summary of the chapter.

6.1 Conclusion

The study was undertaken to establish the factors that influence holistic learning among upgraded schools in Mumuni Zone of Lusaka Zambia. The study revealed that holistic education was not significant at the studied upgraded schools. Despite the curriculum having a positive influence on holistic learning, teaching methods, learning space and pastoral care were not significant. The education of the whole child was therefore not attainable at these institutions.

The study found that only consumable items were available in the upgraded schools. That is, chalk and other stationery. Within this category books, text books, past papers, posters and charts were inadequate while teaching guides were not available. In terms of equipment and furniture desks, chairs, tables, computers and internet facilities were inadequate in the upgraded schools. Projectors and models were not available. The study concludes that upgraded secondary schools did not have adequate instructional materials. The infrastructure items which were found suitable for upgraded schools were only the administration and office blocks. There was no evidence to suggest adequacy in terms of playgrounds and tuckshops. This was mainly because not all schools in the study had these facilities. The items of infrastructure which were found unsuitable for upgraded schools were libraries, school halls, classroom blocks, science laboratories and specialised rooms. In terms of utilities the schools had suitable electricity connections, water and trash bins. Not all schools had utility vehicles while security was considered unsuitable. The study concludes that upgraded schools did not have suitable infrastructure to provide holistic learning.

Basing on statistical analysis, the dependent variable holistic learning was not significantly influenced by the independent variables of infrastructure, learning space, pastoral care and activities to educate the whole person. The two factors that had significance for holistic learning were effective curriculum and instructional materials. It is therefore concluded that upgraded schools have not achieved a significant level of holistic learning.

6.2 Recommendations

1. Recommendations to Government

- i. The study established that that holistic education was not significant. Based on this finding, it is recommended that government builds more classrooms in order to increase the learning space.
- ii. The study found that there were inadequate instructional teaching materials. On this basis, the study recommends that the government through the ministry of general education should engage in a programme to procure the necessary material, equipment and furniture for upgraded schools.
- iii. Another major finding was that the upgraded schools have unsuitable infrastructure. This study therefore recommends that the government engage public and private stakeholders to upgrade the entire school infrastructure to suit secondary school learners since most of the upgraded schools were initially constructed for primary schools,

Recommendations to Schools

- i. It was also established that pupils in upgraded schools lack pastoral care. On this basis, it is recommended that schools take educational approaches that significantly involve parents, the community, teachers, learners and other stakeholders in the education of the child.
- ii. The study established that upgraded schools possess inadequate materials and equipment. On this basis, Management of upgraded schools need to prioritize stocking of necessary materials, equipment and furniture.
- iii. Another major finding was that upgraded schools possess inadequate materials and furniture. On this basis, there is need for upgraded schools to engage the community and private stakeholders in projects to assist schools acquire the necessary materials, equipment and furniture.
- iv. The study established that upgraded schools have poor relationships between pupils and teachers. On this basis, there should be coaching and training of teachers in pastoral care of learners to appropriately qualify them not only in their teaching subjects but also in contributing to the holistic education of the learner.
- v. Another major finding was that upgraded schools lack facilities for extracurricular activities. On this basis, upgraded schools should work to get equipped with facilities for extracurricular activities.

- vi. The study also established that activities to educate the whole personality were lacking. On this basis, schools should procure utility vehicles to facilitate activities to educate the whole personality.

6.3 Recommendations for Further Studies

The study focused on the three selected upgraded schools namely A, B and C in Mumuni Zone, Lusaka District. It cannot be not be concluded, therefore that all upgraded schools in Lusaka District have the same situations. This study recommends that future studies be undertaken to assess the factors that influence holistic learning involving learners, parents and teachers at a large scale such as covering provinces or the entire country.



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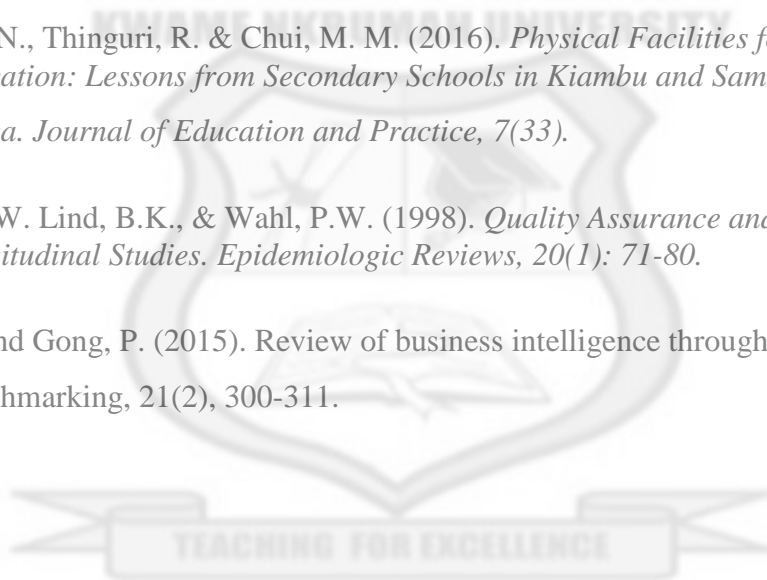
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KWAME NKRUMAH UNIVERSITY



APPENDICES

APPENDIX 1: IN-DEPTH INTERVIEW GUIDE SCHEDULE FOR DEPUTY-HEAD TEACHERS

Date.....Time.....

I am a postgraduate student by the name of **Juliet Mwape Nsangwe** doing a Master of Science in Education Administration and leadership at Kwame Nkrumah University. I am conducting a research on Factors for Holistic Learning in Upgraded Secondary Schools in Mumuni Zone, Lusaka District. I am requesting for your voluntary participation in the study. Please read the information below and ask questions about anything you do not understand, before deciding whether to participate or not.

1. There are no risks in taking part in this study.
2. Taking part in the study will make you a contributor to improving Holistic education in Upgraded schools.
3. All the respondents will be highly appreciated, treated confidentially and used for academic purposes only.

1. Age
2. Sex
3. Year of appointment in current position
4. Last working institution
5. What is your current qualification?
6. How long have you been working at this school?
7. When was this school upgraded?
8. How many streams does each grade have?

(i) Early childhood?

(ii) Grade 1-4

(iii) Grade 5-7

(iv) Grade 8-9

(v) Grade 10-12

9. How many classroom blocks do you have?

(i) Science Laboratories

(ii) Art Rooms

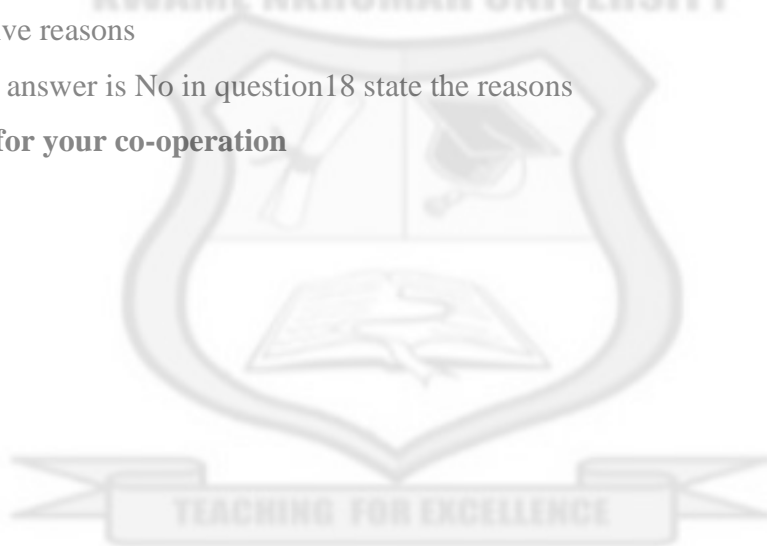
(iii) Sports equipment

(iv) School Hall

(v) Enough school furniture?

- 10 . What is the pupil-teacher ratio?
- 11 . Do you have enough trash bins around the school?
- (i) How many?
13. Do you have workers who keep the school clean?
- (i) How many?
14. Is there a school maintenance committee?
15. Does the school have enough teaching and learning materials?
16. What are some of the challenges relating to quality teaching and learning?
17. What are the different learning sessions that you have?
18. Do you think the policy of upgrading schools is effective?
19. If so give reasons
20. If your answer is No in question18 state the reasons

Thank you for your co-operation



APPENDIX 2: FOR TEACHING STAFF QUESTIONNAIRE

Date.....Time.....

I am a Post Graduate student by the name of **Juliet Mwape Nsangwe** doing Master of Science in Education Administration and Leadership at Kwame Nkrumah University. I am conducting a research on **Factors influencing Holistic learning in selected upgraded Secondary school, Lusaka District**. I am requesting for your voluntary participation in this study. Please, read the information below and ask questions about anything you do not understand before deciding whether to participate or not.

1. There are no risks in taking part in this study.
2. Taking part in the study will make you a contributor to improvement in Holistic education in upgraded secondary schools.
3. All the respondents will be highly appreciated, treated confidentially and used for academic purposes only.

Tick or write where you are requested to do so

1. Female [] Male []

2. What is your age?

20-29 [] years 30-39 [] years 40-49 [] 50 and above []

3. How long have you been teaching?

(i) 1-5 years []

(ii) 6-10 years []

(iii) 11-15 years []

(iii) 16 -20 years []

4. During your career as a teacher, have ever taught at an upgraded school?

No [] Yes []

5. What is your highest qualification achieved?

Diploma [] Degree [] Post Graduate []

Any other specify.....

6. Are you a confirmed as a teacher? []

7. Do you think holistic learning occurs in the upgraded Secondary Schools?

Yes [] No [] Strongly Disagree [] Disagree [] Neutral [] Agree [] Strongly Agree []

8. From your understanding, what is holistic learning?

.....
.....

9. Does your School have suitable classroom laboratories, playgrounds (suitable learning environment) for all pupils?

Yes [] No []

10. Does your School have enough teaching and learning materials? Yes []

No []



APPENDIX 3: IN- DEPTH INTERVIEW GUIDE FOR TEACHERS

Date.....Time.....

Dear respondent,

I am a Post Graduate student doing Master of Science in Education Administration and leadership at Kwame Nkrumah University conducting a research on **Factors for Holistic Learning in Upgraded Secondary Schools in Mumuni Zone, Lusaka District**. I am requesting for your voluntary participation in this study. Please read the information below and ask questions about anything you do not understand, before deciding whether to participate or not.

1. There are no risks in taking part in this study
2. Taking part in the study will make you a contributor to improving Holistic Education in upgraded Secondary Schools.
3. All the respondents will be highly appreciated, treated confidentially and used for academic purposes only.
1. For how long have you been working as a teacher?
2. Is this your first time to teach at an upgraded school?
3. What is your highest qualification?
4. From your knowledge what is holistic Education?
5. Is your school meeting standards for holistic Education to occur?
6. If your answer is No, in question 5, give reasons why you think so.
7. Are you fully satisfied with the learning in your School?
6. Is there enough space in the classroom for air circulation and interaction?
7. Do you have a Science Laboratory?
8. Are there enough toilets for pupils?
9. Do you have computers in the school?
10. Do you have a library to accommodate all pupils?
11. Do you have a Sports ground?
12. Do you have a School bus?
13. Is the policy of hand washing reinforced?
14. Do you have enough teaching and learning materials?
15. Are you fully satisfied with the teaching and learning materials?

Explain briefly.

- 16 Have you received or purchased any text books in the past two years?
If so what grades?

17 .If you had a chance to improve the conditions of learning so that its completely suits a secondary school, what improvements would you recommend?

Thank you for your time and quick response.

